



CAMBRIDGE CLASSICAL STUDIES

The Origin of Roman London

LACEY M. WALLACE

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THE ORIGIN OF ROMAN LONDON

In this book Dr Wallace makes a fundamental contribution to the study of urbanism in the Roman provinces. She attempts for the first time to present a detailed archaeological account of the first decade of one of the best-excavated cities in the Roman Empire. Delving into the artefact and structural reports from all excavations of pre-Boudican levels in London, she brings together vast quantities of data which are discussed and illustrated according to a novel methodology that address both the difficulties and complexity of 'grey literature' and urban excavation.

LACEY M. WALLACE is currently a postdoctoral research associate in Roman Archaeology in the Faculty of Classics, University of Cambridge; a postdoctoral research associate at Queens' College, Cambridge; a tutor at the Institute of Continuing Education, Cambridge; and the principal investigator of the Canterbury Hinterland Project.

CAMBRIDGE CLASSICAL STUDIES

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ROMAN LONDON

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For
FRED MARTIN
and
DOROTHEE FALZONE,
in memoriam

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FOREWORD

ARCHAEOLOGY IN LONDON

The dataset to undertake this study of the earliest settlement in Londinium is rich because London has been subject to extensive archaeological excavation. The archaeology of London got a rather weak start in the post-war period and was only formalised by the creation of full-time archaeological organisations beginning in the 1970s (Sheldon and Haynes 2000: 3–8). There is a vast amount of data that has been collected, much of it archived, some of it published.

Although any deep excavation would have located Roman remains that were undoubtedly known to the inhabitants of medieval and early modern London, it was Sir Christopher Wren who first brought these to the attention of the academic community during his excavations to rebuild St Mary-le-Bow after the Great Fire, in 1671–3 (Wren 1750). Descriptions and sketches of remains found during construction projects witnessed by local antiquarians were regularly published through the eighteenth, nineteenth, and twentieth centuries in journals such as *Archaeologia* (e.g. Combe and Jackson 1786; Kempe 1832; and Lambert 1921), the *Journal of the British Archaeological Association* (e.g. Cumming 1857), and *The Anthropological Review* (e.g. Lane Fox 1867) and were also presented in papers for the Society of Antiquaries of London, the British Museum, and elsewhere. Archaeologists, such as Lieutenant General Augustus Lane Fox (Pitt-Rivers), members of the London and Middlesex Archaeological Society (LAMAS), and Charles Roach Smith (1859), made important observations during destructive construction work, and collections of objects were amassed by antiquarian collectors such as Roach Smith, the British Museum, and the Guildhall Museum.

During the Second World War London suffered significant destruction as a result of the Blitz of 1940–1.

Post-war rebuilding efforts spurred archaeologists to seize the opportunity to record features exposed by clearing the collapsed buildings and uncovering the sediment beneath their foundations. The Roman and Medieval London Excavation Committee, led by W. F. Grimes (1968) of the London Museum, was created to organise volunteers and record sites in the City, while Kathleen Kenyon (1959) led the effort to record and excavate archaeological remains in Southwark. In the face of great need for archaeological intervention, the Guildhall Museum and the London Museum appointed archaeological staff (see Sheppard 1991) and the Southwark Archaeological Excavation Committee (SAEC) also employed a full-time field officer. Volunteers and avocational archaeologists joined local societies to record the trenches in their neighbourhoods, but time and resources were minimal. As development quickened in the economic upswing of the 1950s and 1960s, the need for professional firms and governing legislation to record and preserve sites became clear. Significant and exciting finds, such as the discovery of the London Mithraeum in 1954 (Shepherd 1998), spurred public interest and outcry for the resources to record, collect, and preserve archaeological finds.

Meanwhile, the Guildhall Museum and the London Museum combined forces to form the Museum of London, which organised the first full-time professional archaeological organisation (working only in the City), the Department of Urban Archaeology (DUA), in 1973. Smaller organisations operating in areas other than the City (including the SAEC, which had expanded to conduct archaeological work also in Lambeth and became the Southwark and Lambeth Archaeological Excavation Committee, or SLAEC) combined in 1983 to form another department of the Museum of London, the Department of Greater London Archaeology (DGLA).

Ultimately, Planning Policy Guidance Note 16 (PPG-16) was issued by the government in 1990 (but replaced

by Planning Policy Statement 5 in 2010), making archaeology part of the planning process for new construction, after which time archaeological investigation became a fixed part of the process of construction. New archaeology firms were established to evaluate and excavate sites in the City and Southwark. A significant reorganisation and rebranding of the DUA and DGLA in 1992 created the Museum of London Archaeology Service (MOLAS) and the Museum of London Specialist Services (MOLSS). As a result of another rebranding in 2008, MOLAS and MOLSS combined to become Museum of London Archaeology (MOLA). The London Archaeological Archive and Research Centre (LAARC), also a department of the Museum of London, opened in February 2002 to aid researchers, hold field and post-excavation paper, digital, and artefact archives, and encourage the study of the archaeology of London. The archive is implementing best practice and working to create more accessible digital records, but many difficulties remain.

London is probably the most extensively excavated provincial capital in the Roman Empire, but general awareness of the work there has been hindered by limitations in funding for post-excavation research and publication. As of June 2012, 1,599 sites where Roman artefacts and structures have been identified during evaluations, watching briefs, or excavations have been recorded on the LAARC online database (www.museumoflondon.org.uk/laarc/catalogue/) – 730 in the City, 273 in Southwark, and 596 in other (or unrecorded) boroughs (see also Perring and Brigham 2000: maps 7 and 8). While excavation of Roman sites in London has been driven by construction and spurred on by

passionate groups and by legislation, it has been hindered by downturns in the economic climate and by conflict; especially significant dates include the war years from 1939 to 1945, by the creation of the first professional full-time archaeological organisation (the DUA) in 1973, and by the establishment of PPG-16 in 1990 (Table 1). Most sites have been recorded by MOLA and its predecessors (Table 2), although other well-known organisations have also been active, especially since 1990 (Table 3).

The LAARC stores materials from more than 7,500 archaeological sites in Greater London. It is a resource of international significance and allows researchers direct access to primary information. The archive holds the existing paper and digital copies of the stratigraphic reports, materials catalogues and quantification, drawings, phasing indices, and specialist reports that are necessary for context-level analysis. Many older sites'

Table 1. *Number of sites with Roman material recorded that are included in the LAARC online database during significant periods*

Year range	Number of sites with Roman material recorded
Pre-dating 1940	86
1940 through 1945	0
1946 through 1949	19
1950 through 1959	72
1960 through 1972 (before the DUA)	106
1973 (DUA) through 1989 (before PPG-16)	477
1990 (PPG-16) through 2010	839
Total	1,599

Table 2. *Number of sites with Roman material recorded that are included in the LAARC online database investigated by the organisations that combined over the years to form MOLA*

Organisation	Years active	Number of sites with Roman material recorded
Guildhall Museum	until 1973	195
SAEC and SLAEC	1966 to 1982	82
DUA	1973 to 1992	286
DGLA	1983 to 1992	152
MOLAS/MOLA	1992 to present	455
Total		1,170

Table 3. *Number of sites with Roman material recorded that are included in the LAARC online database investigated by organisations other than MOLA and its predecessors*

Organisation	Number of sites with Roman material recorded
Oxford Archaeology	24
PCA	107
PCA and MOLAS together	5
Thames Valley Archaeological Services, Ltd.	10
Wessex Archaeology	28
Other	255
Total	429

archive records are incomplete because post-excavation analysis was limited by time and financial considerations, while materials from more recent sites have often not yet been deposited. Consultation with the personnel at MOLAS/MOLA made a good portion of such data available for this project.

Site reports are not referenced in the text ([Chapters 2–6](#)) except in relation to specific interpretations. See Appendix: Gazetteer of Sites for the relevant publications for each site. Where no publication is listed, the only available information derived from the LAARC.

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Naturally, I remain responsible for any and all errors in this text, including those that are a result of using unpublished and archived drafts of site reports.

AN INTRODUCTION

What little we know of the London before Boudicca is based on scraps of archaeological information, mostly obtained under conditions which precluded scientific accuracy, and a few sentences of Tacitus.

(Merrifield 1965: 38)

Today, London is the most completely and accurately excavated provincial capital in the Roman Empire and the best-explored town in Roman Britain. A vast amount of data has either been published or made publicly available. Even so, the available information has not yet been drawn together to understand the foundation of the town and to address Merrifield's lament. While it may seem remarkable, the sheer quantity and complexity of artefacts, notes, photographs, maps, finds tables, and site reports in various stages of completion can be daunting. Studies of the foundation have tended, instead, to draw upon individual sites or groups of sites, remarkable features of limited number, and finds of interest. While such an approach might be expected within the pages of a site report, and was the only possible method fifty years ago (before the majority of sites included in this book were excavated), it is certainly insufficient in light of the data available today.

No evidence of the origin of any other urban centre in the Roman world rivals that of London; for wealth of excavation and records available to examine the earliest years of a Roman town, London stands alone. Other well-excavated towns (e.g. Pompeii, Silchester) have the benefit of the absence or removal of later buildings, which only makes the work of the London's archaeologists that much more impressive. Urban excavation is not usually driven by research motives, but rather by development and repair of the modern city. Since at least the Victorian period in London, individuals and institutions have had a passion for preserving Roman London through

recording, buoyed by policy since 1990, which has produced a unique legacy of data.

No study of the origin of Roman London (or any other ancient urban site) has ever been undertaken, and the results presented here constitute the first major synthesis of the evidence. This study provides a solid footing from which to address the different interpretations of early Londinium and to contribute to the debate of the origins of urbanism in the Roman provinces. Although only Colchester (ancient Camulodunum/Colonia Claudia Victricensis) and St Albans (Verulamium) might present archaeological evidence with significant parallels to Londinium because they too suffered destruction in the Boudican fire of AD 60/61, there are no studies of the pre-Flavian levels or of the first two decades after the foundation of any other Roman town. Often, only 'new towns' have early Roman levels able to be distinguished from Late pre-Roman Iron Age (LPRIA) horizons beneath. To examine the 'foundation' of a Roman town somewhat arbitrary dates or construction events would have to be chosen as beginning and end points. The archaeology of early Londinium is hardly clear-cut and simple to isolate – indeed, a number of subjective decisions have been made to create the dataset for this study.

Londinium is a town whose foundation story has been of interest to scholars for centuries (a short list would include Maitland 1756; Craik 1841; Haverfield 1911; Wheeler 1928; Merrifield 1965; Marsden 1980; Chapman and Johnson 1973; Williams 1990; Millett 1994; and Perring 2011). As all scholars note, Londinium does not fit any simple foundation model as there is no evidence of a pre-existing *oppidum* or other significant LPRIA settlement, the administration founded no *colonia* there, and the town that did develop was not granted *municipium*

status – at least not before the Boudican Revolt of AD 60/61 (Tacitus, *Annals* 14.33). Ptolemy (*Geography* 2.3.13), writing approximately a century after the Revolt, gave no specific status to Londinium and placed it in the territory of the Cantiaci. Nonetheless, the city went on to become the capital of Britannia, and subsequently Britannia Superior, and gained the illustrious title Augusta by the fourth century. Epigraphic evidence from an inscribed slab of purbeck ‘marble’ suggests that Londinium was elevated to the status of *colonia* as early as the second century (Tomlin 2006a). Many authors have retrospectively suggested that Londinium held some degree of administrative importance from its inception, before the Revolt, although the total lack of literary evidence and procuratorial tile stamps is strong evidence to the contrary (Betts 1995). The burial in London of G. Julius Classicianus (*RIB* 12, Collingwood and Wright 1965: 5), the *procurator* sent to Britannia in the aftermath of the Revolt, provides evidence that the administration moved its headquarters from Colonia Claudia Victricensis (the colony at Colchester) to Londinium. Similarly, the monumentalisation of the forum area (Marsden 1987) and construction of buildings with the appearance of administrative functions (Hill 1989), a late Neronian fort at Plantation Place (Dunwoodie forthcoming), and Neronian quays and warehouses (Brigham and Watson forthcoming; Milne 1985), indicate the increased significance of Londinium’s role in the provincial administration in the years *after* the Boudican Revolt.

The short window of time between the foundation¹ of Londinium and the horrific destruction it suffered during the Boudican Revolt (see page 23) is bounded both by historically attested events and by identifiable archaeological horizons. The key to understanding the origin of London lies within these bounds and, although scarce evidence hampered scholars for centuries, the questions

of origin have nonetheless fuelled lively discussions. Understanding the birth of Britannia’s capital city holds as much significance to the study of the province as the deep antiquity of the modern capital does to English identity. For these reasons, the study of London’s foundation and the character of the earliest settlement have been accompanied by dynamic and impassioned scholarly debate. Until relatively recently, however, this discourse was supported by little more than the static and short historical accounts provided by Caesar in his *Gallic Wars*, by Tacitus’ *Annals*, and, more remotely in time and space, by the historian Cassius Dio. The speculations derived from logical reasoning based upon ancient sources and upon London’s geographical setting dominated these discussions until the early twentieth century. Although archaeological observations have been made in London during construction projects over the last three centuries, it is only those of the last forty years that have been used as opportunities for systematic recording and collection of archaeological evidence. The key to understanding the origin of Londinium lies in these rich archaeological remains, which must be understood in the context of social, political, and economic changes in Britain in the lead-up to, and as a result of, the Claudian invasion.

BEFORE LONDINIUM

Britain had been in the process of becoming Britannia for some time when the first roads and buildings were constructed in Londinium. Imports of Continental goods, such as wine and Gallo-Belgic pottery and coins, the transition to burying the cremated remains of the high-status dead in grand ceremony with ceramic vessels accompanied by objects (personal adornment, feasting vessels, etc.), and the minting of the first British coins indicate the significant changes in the south-east resulting from contact with people living on the Continent in the LPRIA (Cunliffe 1991; Haselgrove 1984). Tribal leaders in Britain were refashioning social hierarchies, political and military alliances were made between British kings and Rome; wine, oil, and objects from across the Empire

¹ For the purposes of this project, the word ‘foundation’ is used to refer to the establishment of the earliest settlement in the town, not to a particular model characterised by a specific system of religious or administrative actions and boundaries within an overarching cultural urban ideal, as expressed by Virgil and Vitruvius (see e.g. Woolf 1998: 215–16, 2000: 120).

were imported to Britain; and burial practices, architecture, settlement patterns, and coin imagery were changing (see, e.g., Creighton 1995, 2000, 2001, 2006; Cunliffe 1984, 1991: 107–29, 541–8; Haselgrove 1984, 1988; Millett 1990: 17, 29–39).

Although Britannia was not officially incorporated as a province until AD 43, it was within the sphere of the Roman world just across the Channel during the first century BC. The provinces nearest to Britannia – Gallia Lugdunensis, Gallia Belgica, and the military zone of Germania Inferior (Figure 1) – were incorporated (originally as parts of the Three Gauls) during the campaigns of Caesar in the 50s BC. As Gaul was incorporated into the Empire, the people of south-eastern Britain became more receptive to Roman contact, in the form of trade and communication, in the century before the invasion of AD 43. The port at Gesoriacum (Boulogne) was probably the one from which Caesar’s forces as well as the Claudian invasion fleet embarked, and may have been an important link through the Continent and to the Mediterranean via the Via Agrippa (Woolf 1998). The Morini and Menapii tribes lived on the coastal areas of Gallia Belgica across the Channel, but what direct contact they may have had with south-eastern Britain is unknown, although Caesar’s claim (*Gallic Wars* 4.20) that tribes in Britain united with tribes in Gaul to fight against the Romans suggests that ties of loyalty and shared goals bound the groups across the Channel.

Changes visible in the archaeological record in Britain from the mid-first century BC could be linked to treaties formed by Caesar with the southern kings. Although these treaties would have been voided by the death of Caesar in 44 BC, Augustus re-established new treaties in the 20s BC and Caligula made an attempt, albeit unsuccessful, to invade Britain and incorporate it into the Empire. Accounts of Caligula’s campaign in Britain are largely lost in Cassius Dio (although see Cassius Dio 59.21.2) and Tacitus, but his intervention could have had a significant effect on Britain, of which we are unaware from the literary sources. In the early first century AD the Commian and Tasciovanian dynasties in the south and east were both in alliance with Rome, and

coinage minted by British kings emulated forms of Roman propaganda and supports coin use in trade and transactions with people from the Continent (Creighton 2001, 2006).

The growth of centres of tribal focus indicates centralisation of control, directly related to the increased wealth and power of certain people or families. These central places, often termed ‘*oppida*’, for lack of a better word, are a characteristic of the LPRIA. They were areas of increased population where kings had coins minted, high-status people constructed elite residences in the form of groups of buildings within ditch enclosures, prestigious individuals were commemorated with elaborate funerary rites and burials, and large ditch-and-dyke systems requiring significant consolidated authority and wealth served as defensive features, boundaries, and links. LPRIA sites known as *oppida* in the south-east include Camulodunon (Colchester) to the north-east of London; Verulamion (St Alban’s), Wheathampstead, Braughing, and Dyke Hill north of the Thames and west of London; Oldbury, Loose, Bigberry, and Canterbury, south of the Thames and east of London; and Chichester, Silchester, and Winchester south of the Thames and west of London (Figure 2). The Iron Age *oppida* in south-eastern Britain do not, however, seem to have functioned as centres of dense population, commerce, justice, and administration – characteristics common to Roman towns. Constructing towns did not apparently become important until after the Claudian invasion; the long-standing treaties with Rome allowed the local kings to administer their lands as they saw fit. The vast majority of the population in pre-Roman and Roman Britain was probably rural (Millett 2005: 37; see also Taylor 2007), and yet the Roman model for governing conquered territory in the provinces was based on centralised administration. The process of urbanisation in Roman Britain has, therefore, long been viewed as a purposeful action on the part of the military and imperial administration to subdue, control, and acculturate the native inhabitants. The role of native kings and elite groups in the creation of towns, however, is likely to be far greater than is often acknowledged (Creighton 2006).

The questions regarding who built the earliest towns in Britain, why, how they responded to LPRIA sites and landscape features, how they functioned, and who lived and worked in them are at the centre of the study of the origins of urbanism in Britannia.

The British kings did not apparently take any interest in the area of later Thames settlement, however; during the LPRIA the landscape of the area that would become Londinium was natural and lacking in significant occupation (see also [page 34](#)), although Bronze Age and Iron Age sites are known in the Greater London area (Greenwood 1997; Kent 1978; Merriman 1987; Sidell 2002; Wait and Cotton 2000). It has been shown through extensive survey of the material evidence that relative levels of human presence in London are strongest in the Bronze Age with a distinct hiatus in local activity during the Iron Age (Holder and Jamieson 2003). Characteristics of other Iron Age settlement areas in the south-east, such as rich cremation burials and Gallo-Belgic pottery, are absent in the London area. Despite the excellent geography of the site and advantages for an *oppidum* at London, there is no evidence of a significant LPRIA settlement, although prehistoric finds are not uncommon. Within the modern bounds of Greater London there are sites that demonstrate that the general area was not entirely devoid of occupation in the centuries preceding the foundation of Londinium, although no LPRIA occupation sites were situated along the Thames or on the site that would become Londinium.

In the area where the later town would be constructed there are a number of finds that suggest earlier occupation, especially in Southwark. Although the LPRIA is most significant to the discussion of the growth of the Roman town, it is still worth noting that postholes were found representing a Late Bronze Age (LBA), possibly Early Iron Age (EIA), round house and an Iron Age field or enclosure boundary at Courage Brewery in Southwark, the site of an early Roman building on the western side of the northern eyot² (Cowan 2003; Sidell 2002; Wait and

Cotton 2000). Beneath the main road in Southwark, at 124–126 Borough High Street, an inhumation burial of a thirty-year-old male of probable Iron Age date was found (Dean and Hammerson 1980) and some of the ditches at 15 Southwark Street may be LPRIA in date, although they also contained Roman material (Sidell 2002). Possible Iron Age pottery was found at 11–19 St Thomas Street, less than 100 metres east of early Roman buildings on the northern eyot (Cowan et al. 2009) and on Bermondsey eyot, south of the Thames about a kilometre east of the nearest early Roman site, a pit was excavated that contained LPRIA shell- and grass-tempered pottery, along with flint tools and bones of cattle, sheep, and horses at 170–176 Grange Road (Cowan et al. 2009; Heard 1996). Four other sites on that eyot also indicate possible human activity in the Iron Age (Heard 1996: 79, fig. 2).

North of the Thames, scattered prehistoric objects occasionally come to light, such as LBA/EIA potsherds found in the Cripplegate area, a bronze drinking-vessel mount from near Eastcheap, and fragments of a pedestal urn from near Paternoster Square (Wait and Cotton 2000). Northeast of Lorteburn Stream, a possible Iron Age inhumation was located beneath Roman levels in the nineteenth century, and, in 1976–7, a large pit and a possible LPRIA burial were found near the Tower (Kent 1978; Merriman 1987; Parnell 1977; Wait and Cotton 2000) – both of which lie east of the bounds of the Roman town.

West of the Roman settlement, in Westminster, a Bronze Age/Iron Age timber structure was found in Richmond Terrace Mews and LBA–EIA pottery and a spindle whorl in St Margaret Street. Most significant to the early Roman period is the LPRIA potin coin hoard in St James's Park (Wait and Cotton 2000). Potin coins found east and west of Londinium derive, possibly, from north Kent (Haselgrove 1988: 103, 119–20) and Gallo-Belgic B gold staters concentrated west of Londinium could indicate a significant LPRIA centre there (Kent 1978). Other Bronze Age–Iron Age occupation sites are known along the Thames valley in Wandsworth, Richmond, Hammersmith and Fulham, and Hounslow (see Wait and Cotton 2000: map 6).

² An eyot is a small island, especially in a river, and is the usual term to refer to the small sandy islands in the Thames where the Roman settlement at the southern end of the bridge was located.

The prehistoric use of the Thames in the London area is presented by Celtic prestige artefacts found during dredging, much of it from west of London near Battersea Bridge – particularly the bronze, enamelled ceremonial shield (British Museum 1857,7–15.1; Stead 1985). These artefacts, which include feasting objects, weaponry, and harness equipment, demonstrate that the Thames was in use as a depositional location from at least the Bronze Age. Although the date of the deposition can only be based on the style of the objects, parallels for some can be found in the LPRIA, such as in complex elite burial assemblages (e.g. Stead 1967), common in nearby Essex and Hertfordshire, but which are unknown in the London area. The Thames assemblage could be related to the same phenomenon of elite burial, and perhaps represents the material remains of a similar rite (Bradley and Gordon 1988: 504; Sharples 2008: 210–11). Nonetheless, there was a significant decrease in deposition of prestige armour and feasting equipment in the Thames in the LPRIA, perhaps because the area where Londinium would be built was a significant boundary (Creighton 1995: 298; Wait and Cotton 2000: 108).

Human crania also found during dredging of the Thames west of London in the nineteenth century (precise numbers of skulls and their finds locations are unknown, although 299 survive: Bradley and Gordon 1988: 504; Cuming 1857: 237; Lawrence 1929) could indicate a link between river burial and deposition of weaponry and other objects in the Thames. Four crania have been C-14 dated to the M/LBA (the range covers c. 1388–800 BC: Bradley and Gordon 1988: 508). Few mandibles (only fourteen are known) or other human bones have been found, indicating the likelihood that the bodies were exposed to decay and became disarticulated before the crania were selected for deposition in the river (Bradley and Gordon 1988: 504). Of the 299 surviving skulls, 60% were male and 40% female, and 94% were aged between twenty-five and thirty-five years, suggesting that this rite was reserved for a select group of people (Bradley and Gordon 1988: 505). The later, Roman-period skulls found in the upper Walbrook (see page 23 below) could be part of a continued tradition, perhaps

demonstrating that those Iron Age groups who were using the Thames for ritual deposition of weaponry and human remains continued to come to the area, perhaps even living in Londinium in the Roman period (Marsh and West 1981).

The Celtic metalwork and crania from the Thames do not necessarily mark the position of a bridge, ford, or settlement at London, but probably do indicate a symbolic or otherwise significant location of votive offerings in a watery location and river burials. Votive deposition in watery contexts is well-documented across prehistoric Europe (Bradley 2000: 51–63) and springs, marshes, and rivers are likely to have had great cult significance, drawing diverse people from surrounding settlements to make offerings to deities associated with such places. This interpretation is somewhat speculative, however, as it has also been argued that the Thames skulls and artefacts could originate from eroded bank sites upstream (Ehrenberg 1980: 5–14).

These objects nonetheless highlight the probability that the Thames was in use, probably as a major route for communication and inland trade in the south, during the LPRIA and early Roman period before the creation of the road network. This trade can be seen in imported Continental goods at inland locations such as Calleva, as well as in the distributions of British and Gallo-Belgic coins. The type of boat that appears on some bronze coins of Cunobelin (c. AD 10–40) found in Colchester and Canterbury is of a high-sided, flat-bottomed type, well suited to estuary and river transport, and may represent just this type of use of the Thames, perhaps by the Trinovantes and Cantiaci (Muckeroy et al. 1978; Sealey 1996: 62, fig. 8 and pl. 1; Wait and Cotton 2000: 112).

There are two sites on either side of the Thames, about 15 kilometres downstream from where Londinium would be built, that might indicate significant Middle Iron Age (MIA) settlement in this part of the Thames valley: the settlement and/or ritual sites represented by large (7.62 metres deep) M/LIA (Late Iron Age) V-shaped ditches enclosing round buildings and pits at the site of Woolwich Power Station in Greenwich; and the MIA remains at the 19–24-hectare Uphall Camp in Great Ilford, where

a variety of timber structures were enclosed by earthworks (Greenwood 1997; Wait and Cotton 2000: 106). These sites, which many would consider *oppida*, indicate that the Thames was an important navigation route in the MIA, and probably integral to the importation of goods from the Continent. The 17.4-hectare MIA site of Caesar's Camp, Keston Common, about 18 kilometres south-east of Londinium, is another substantial ditch-enclosed site from the period that suggests a focus on the area (religious? economic? defensive?). South-west of Londinium lay the MIA/LIA temple at Caesar's Camp, Heathrow, a rectangular beam-slot-defined '*cella*' surrounded by postholes within an earthwork enclosure (Grimes and Close-Brookes 1993: 312–18). With construction and occupation of these sites separated in time from early Londinium by at least two hundred years, these sites clearly had no direct relationship to the creation of the town, but they demonstrate the possibility that the area continued to hold some significance into the LPRIA.

The choice to build a town may not have been a direct result of these activities, but the importance of the Thames, both as part of the communication network and as a symbolic waterway, supports the notion that the site of Londinium was not unknown to Iron Age traders and other people moving through the south-east. The position of Silchester and Dyke Hill near the Thames and its tributaries in the west is of particular importance to the possible use of the rivers for trade and communication. Imported Continental artefacts found at these two sites, such as the bulky and heavy Dressel 1 wine amphorae that would be easiest to transport by ship, coupled with the lack of known LPRIA roads, would suggest that the mode of transport was river-borne. In this context, it is possible that the Thames artefacts and skulls found near London could mark a control point or other significant location along this route. Also, in the early Roman period native craftsmen were attracted to Highgate Wood a few miles from Londinium where they worked as itinerant potters to produce Belgic forms of pottery for the population at Londinium (Brown and Sheldon 1974: 224–5). These potters did not construct a

settlement that has been located archaeologically, but their presence supports the idea that native groups were familiar with the area and its resources. Although there is no evidence for LPRIA settlement or occupation debris in London, a more transient or intermittent form of activity in the London area in the LPRIA and early Roman period is undeniable.

THE THEORY OF A PRE-ROMAN LONDON

This study of the earliest phase of Londinium has a clear chronological focus, attempting, as it does, to illustrate life in the Roman-period town up to the Boudican Revolt in AD 60/61. From Tacitus' description (*Annals* 14.32) of the town at the time of the Revolt, most scholars have, historically, agreed that it was probably a trading port inhabited primarily by merchants at the time. Before intensive excavations began in London in the twentieth century, however, there was no stratigraphic or material basis for ruling out significant LPRIA occupation; the question of London's origins had, therefore, engendered diverse hypotheses and lively debates. Currently, the lack of evidence of any substantial LPRIA settlement is so strong as to be undeniable, but disregarding, dismissing, and devaluing earlier arguments would be denying the genealogy of the academic creation of the story of early London. The dramatic transformation of evidence, approaches, and goals in the research of early London over the last century has rendered it virtually impossible to find a cohesive overview of the earlier academic discourse, although the trends occurred within the academic context of the study of Roman Britain generally. Nonetheless, the arguments relating specifically to the foundation of London are important to the historiography of the early Roman town, and yet there is no publication that concisely describes the intellectual development and theories of the most influential scholars, as they relate specifically to London (although Merrifield 1969, 1983; and Wheeler 1928, 1930 do provide overviews).

Study and discussion of the establishment of settlement at Londinium has a long history, beginning with a twelfth-century foundation myth (Geoffrey of

Monmouth: see Reeve 2007), which was discarded in favour of logical reasoning informed by ancient authors and linguistic analysis during and after the Enlightenment (e.g. Camden 1610; Craik 1841; Maitland 1756; Lane Fox 1867; and Wren 1750), and finally superseded by analytical approaches to material and archaeological remains from the nineteenth and twentieth centuries (e.g. Lethaby 1923; Lane Fox 1867; and Oswald and Pryce 1928). Although discoveries made during building work in the seventeenth, eighteenth, and nineteenth centuries (e.g. Craik 1841; Smith 1859; and Wren 1750; see also Smith et al. 1974) supported the Roman foundation of the town, for many years some scholars still wished to show that London could have been founded by the indigenous Britons (e.g. Lane Fox 1867; Lethaby 1923; and Home 1948), perhaps tacitly to elongate the history of the important city and to claim a truly British origin for the nation's capital, which would bolster the longevity and genealogy of the national identity.

The Trojanic foundation myth

Geoffrey of Monmouth's twelfth-century tale of the mythical foundation of London, in *Historia Regum Britanniae* (see 'Description of the Island' and Books 1–5 in Reeve 2007), may recount stories that originated perhaps six centuries earlier; there is evidence that Geoffrey was influenced by Gildas' sixth-century *De excidio Britanniae* and by Bede's eighth-century *Historia Ecclesiastica* and *Historia Britonum* (Reeve 2007: lvii). Geoffrey tells a tale, years after the Trojan War, in which the great-grandson of Aeneas, called Brutus, was exiled from Rome and, after an adventure that took him to Troy to free the enslaved men, settled on an island in the western ocean called Albion, which was inhabited by giants. He renamed it 'Britannia' after himself, and, after he and his followers defeated the giants, he sought out the site for a new city, which he called 'Troia Nova' (corrupted to Trinovantum over time). The myth goes on to describe how the city was later overtaken by King Lud, mythical predecessor of Cassivellaunus, who constructed a great wall with many towers around the town. Geoffrey proposed that King

Lud renamed the town 'Caer-Lud', which was corrupted to 'Caer-London' before changing to 'London' under Saxon rule. He explains that King Lud was buried at Ludgate, giving that landmark its name. In an era before archaeological investigation and systematic inquiry, speculations and foundation myths represented a combination of vernacular history and explanatory modelling. It seems that Geoffrey's myth was still significant six hundred years later; the eighteenth-century historian William Maitland (1756: 4–11) showed extreme contempt for Geoffrey's story and constructed a logical, detailed argument to disprove it, suggesting that it had become a popular fiction at the time.

The etymology of 'Londinium'

The etymology of the word 'Londinium' has long been used as evidence of its Celtic foundation. 'Harbour for Ships' from the Celtic words *lhong* (ships) and *porth* (harbour) was an early hypothesis (Camden 1610), as was 'Ship Hill' from *lhong* and *dun* or *don* (hill) (Wren 1750: 264–5), 'Plain Hill' from *lon* (plain) and *dun/don* (Maitland 1756: 17–19), and 'Town of Ships' from *lhong* and *dun* (meaning 'town' this time) (Craik 1841: 148). Some of these hypotheses have been related to topographical and archaeological evidence (see pages 8–9 below), such as 'Lake City' from *llyn* and *din* (Pitt-Rivers as Lane Fox 1867).

None of these early attempts to decipher the word has withstood the test of time, however. Currently, the etymology of Londinium is thought to be, first, a Latinisation of Celtic 'Londinion', and, secondly, 'the place (or land) of Londinos' (Haverfield 1911: 145; Rivet and Jackson 1970: 76; Rivet and Smith 1979). What 'Londinos' means is unknown – although a personal name derived from *londos* (fierce) has been suggested (Home 1948: 18–19), this translation is incorrect and the derivation is, in fact, unknown (Rivet and Smith 1979: 396–8). The only other true link to the Celtic word *londo* is ancient 'Londobris' mentioned by Ptolemy (2.5.7), modern Berlenga Island off the coast of Portugal (Rivet and Smith 1979).

There is another possible interpretation, although it is somewhat tenuous (Coates 1998). The name may be derived from a local pre-Celtic river name ‘Plowonida’ composed of *plew* and *nejd*, suggestive of the meaning ‘the (wide) flowing river’. In this interpretation, ‘Londinion’ would be the place name derived from the river name, meaning ‘the place/settlement on the (wide) flowing river’ (Coates 1998: 227).

The earlier arguments based on these Celtic translations suggested that a Celtic name equalled a Celtic population and pre-Roman foundation (e.g. Lewin 1866: 59; Lethaby 1923: 230). It is well documented, however, that the Romans often gave native names to new settlements (Haverfield 1911: 145; Home 1948: 19; Maitland 1756: 17–19; Rivet and Smith 1979: 22–23; Wheeler 1928: 19) and, despite the intensity and longevity of interest in this debate, the exact meaning of the Celtic word ‘Londinion’ is immaterial to (dis)proving the existence of a pre-Roman settlement.

Material evidence of prehistoric activity

Seventeenth- through nineteenth-century construction and sewer trenches and early archaeological excavations in the City and Southwark provided keyhole glimpses of the Roman settlement that led to much speculation and hypothesising among academics and excavators. For example, Pitt-Rivers (as Lane Fox 1867: lxxvi–lxxix) suggested that a structure founded on wooden piles that he excavated in the area of London Wall was evidence of native pile-supported lake dwellings, and hypothesised that they were the remains of the British capital of Cassivellaunus, a theory that was already in existence (Lewin 1866). Similarly, in the 1920s a small collection of early first-century Arretine (*terra sigillata*) sherds had a significant impact on the dating of the foundation of London to the pre-Claudian period (Lethaby 1923; Oswald and Pryce 1928), but excavations over the next thirty years produced such a plethora of Claudian and later pottery that these early sherds became statistically insignificant and could easily be explained as older objects in the

possession of later inhabitants (Merrifield 1965: 29–32; Morris 1982: 87–90). Indeed, the argument surrounding the early *terra sigillata* in London is now known to be a moot point as these objects were very probably imported from the Continent by nineteenth-century art dealers who claimed that they had been found in London to increase their value (Marsh 1979). More than any other finds, however, the prestige objects found during dredging of the Thames, discussed above (see page 5), once seemed strong evidence to support a pre-Roman settlement (Cumming 1858; Haverfield 1911: 146; Lawrence 1929; Lethaby 1923: 231–8; Roots 1844; Vulliamy 1930: 119–29; Wheeler 1928: 24–7).

Pre-Roman river crossing

The reasoning that a bridge or ford existed before the invasion and later settlement at London, and therefore precipitated the foundation of the Roman town, is based on ancient authors’ descriptions of the military movements of Caesar in 55 and 54 BC and Plautius in AD 43 (Camden 1610; Craik 1841: 147; Lethaby 1923: 230, 242–4; Maitland 1756: 8). Caesar and Plautius landed in Kent and/or Sussex (Hind 2007: 100–5) and marched their armies north, requiring them to cross the River Thames (see also page 13 below). Caesar (*Gallie Wars* 5.18–20) stated that he crossed the Thames at a ford before heading to the capital of Cassivellaunus. Cassius Dio (60.20.5–21.3) recounted that Plautius and his army fought a skirmish after crossing the Thames at a bridge upstream from where the Batavian soldiers with him were able to cross (supposedly to swim across, but more likely at a ford). The word Cassius Dio used is *γεφύρα*, which usually refers to a bridge or a structure acting as a bridge, but, at the time Cassius Dio was writing, could also have referred to a dam, platform, deck, or causeway (Patrick James, pers. comm.; *γεφύρα* LSJ s.v.). Cassius Dio, a historian writing in Greek in the early third century AD who never visited Britain and was writing more than a century after the Claudian invasion, was almost certainly too distant from the events for his words to be understood literally, however.

It was also once thought that Watling Street east of London and in Southwark seemed to point westwards towards Westminster, which, along with Iron Age swords found near Westminster Bridge in 1847, caused some to suggest a ford or early bridge at Westminster (e.g. Home 1948: 29–31, 35–40; Lethaby 1923; Thomas 2008: 104), although today it is known that Watling Street turned north to cross the Thames and that there is no evidence for an early crossing at Westminster (Bird 2002; Sheldon 2000; Sloane et al. 1995; Watson et al. 2001).

The ambiguity of the word γερύρα, the impossibility of demonstrating that the crossing points of either Caesar or Plautius were at the site of the later town of Londinium (other sites besides Westminster have been suggested, e.g. see also Sharpe 1906, who favoured a ford at Brentford, upstream), the likelihood that Plautius built his own bridge or raft to cross the Thames, that a pre-Roman bridge presupposes pre-Roman roads leading to and from it, for which there are no evidence, and the total lack of evidence for a substantial LPRIA settlement at London disproves these hypotheses (Smith 1859: 20; Haverfield 1911: 145; Merrifield 1965: 34; Wheeler 1928: 19, 1930: 15).

Pre-Roman trading port

The hypothesis of a pre-Roman trading port has long been popular (e.g. Wren 1750: 265), although evidence has never been strong (Wheeler 1928: 24–7). The natural advantages of Londinium and the assumed requirement of a port on the Thames to facilitate pre-Claudian trade with Gaul caused some early scholars to conclude the existence of a pre-Roman trading port (e.g. Lewin 1866: 61–2; Home 1948). Weak arguments are characteristic of this model, however, and none were based on archaeological remains. For example, it was once presumed impossible that the town could have been only eighteen years old (i.e. founded post-invasion) when it was destroyed by Boudica because Tacitus (*Annals* 14.33) suggested that the population already numbered 70,000 (Lewin 1866: 61–2). Modern readings of Tacitus do not credit these figures with great accuracy; his original

purpose was probably to amplify the horror of the rebellion and, thereby, the glory of the victory in order to bolster the emperor's position as a military leader (through that of the governor Paulinus) and justify his rule for a specific, literate audience in Italy (Mellor 2011). The explanations of London's being the capital of King Lud and Cassivellaunus have already been mentioned (see page 7 above) (Lewin 1866: 61, 66), while some have supposed that the capital of Cassivellaunus, at Verulamium, must have required a port and that, being connected to Verulamium by a road, Londinium probably served as that port (Lethaby 1923).

The end of pre-Roman London

The creation of a complex and detailed archaeological record has been the result of rescue archaeology and museum initiatives in the 1950s and 1960s, as well as the formation of full-time, professional archaeological organisations, such as the DUA, and has had an enormous impact on these earlier debates. Because no LPRIA settlements or significant domestic refuse have been found in London, despite extensive archaeological excavation, arguments for a purely Roman foundation of London are now common and uncontroversial (e.g. Merriman 1987). The question of a pre-Claudian-invasion settlement at London was put to rest in scholarly circles by the early to mid-twentieth century (e.g. Wheeler 1928, 1930; Merrifield 1965, 1983), when the debate shifted to questions of the impetus of foundation and the research objectives began to focus more strongly on describing the evidence to develop a narrative (e.g. Chapman and Johnson 1973; Hassall 1996; Merrifield 1965; Marsden 1980; Morris 1982; Millett 1994; Philp et al. 1977).

The rejection of Geoffrey of Monmouth's myth, and eventual rejection of a pre-Roman London altogether in the latter part of the twentieth century, propagated yet another myth: that of an empty London area during all of prehistory (Holder and Jamieson 2003: 23). There is significant evidence of at least transient activity during the Late Bronze Age, Mesolithic, and Neolithic in

particular, followed by a relative hiatus in common human presence during the Iron Age (Holder and Jamieson 2003: 32–9).

AFTER THE CLAUDIAN INVASION

In AD 43 the Roman Empire encompassed nearly the entire Mediterranean basin and spread from the Atlantic coast of the Iberian Peninsula in the west to Anatolia in the east and from the mouth of the Rhine in the north to North Africa in the south, but Britannia was at its edge. The nearest non-Roman territory across the Channel was in the modern-day Netherlands, north of the Rhine – a significant boundary beyond which Roman military campaigns accomplished little. The expansion to Britannia signified the emperor's conquest of the 'Ocean' and of the British tribes who supported Gallic tribes against Rome and Caesar in the previous century (Caesar, *Gallic Wars* 4). It was also politically symbolic for Claudius both to emulate Caesar's campaigns and purported success as well as to carry out the incorporation of the territory as a province, as Caesar and Caligula had been unable to do. The Claudian invasion did not put an end to kingship in Britain, and treaties were created with Prasutagus who ruled in East Anglia, Togidubnus who ruled the south, and Cartimandua in the north. Significant sites where towns would later be formed, such as Gosbecks, Silchester, Canterbury, and Verulamium, were held by kings of the south and east at the time of the invasion; the role of local leaders in engendering urbanism in Britannia was significant (Creighton 2006: 124). The area that was to become Londinium, however, lay on a boundary formed by the Thames estuary, at the limits of influence of cultural groups, and was not claimed by the Trinovantes to the north or the Cantiaci to the south (Creighton 2006: 95; Millett 1990: 89; Wait and Cotton 2000: 102, 113); that habitation sites did not focus on the territory along the Thames in the LPRIA (see pages 3–6 above) supports this hypothesis.

Academic models for understanding urbanisation in Britannia have evolved over the years. Of all paradigms proposed to explain town-formation in Roman Britain,

the most significant for influencing later interpretations has its origins in the nineteenth century, when fantastic new discoveries were being made all over the country during construction related to rapid industrialisation and growth of the cities and suburbs of England. In previous centuries antiquarians such as Aubrey and Stukeley had begun the trend of serious academic investigation into the classical antiquity of England, but archaeology as we recognise it today commenced later in the Victorian era, with early investigators, such as Pitt-Rivers. This work coincided with the height of nineteenth-century British imperialism, and this socio-cultural context coloured much of the interpretation of the earlier archaeological discoveries from Roman towns in Britain. The colonial model suggests that Roman colonists arrived in the province and created and populated its towns, from which they conducted administration and brought Roman culture to the 'natives'.

In the twentieth century ideas began to evolve, and a new model gained popularity whereby towns in Britannia were inhabited not, as had been long imagined, entirely by Italian imperial colonists, but rather by indigenous Britons eagerly adopting Roman ways of life with the educational aid of the administration and the army – a situation not so different from one ideal model of the British in India at the time (Haverfield 1911). This is not to say, however, that the top-down colonial method of social change was abandoned. Strong focus remained on the 'Roman' aspects of the archaeology of towns – defences, public buildings, baths, amphitheatres, and town-house plans – explicitly separating the indigenous population from the town-dwellers and implicitly forwarding the view that the origins of the towns were intentionally planned for 'Roman' reasons and that the 'native' settlements were separate, more organic developments (Collingwood 1930: 92–5).

A number of urban sites in the south-east appear, like Londinium, to have developed as urban centres relatively rapidly, although only Verulamium and Camulodunum/Colonia Claudia offer direct comparisons for the development pre-AD 60/61 because they, too, were burnt in the Boudican Revolt. Comparisons of the growth of these towns based on occupied area and density of structures

are, however, difficult to make because the excavation histories of the three sites have been so different. Also, Verulamium and Camulodunum/Colonia Claudia differed greatly from Londinium because they were important Iron Age centres with substantial archaeological remains demonstrating significant LPRIA use and occupation. Camulodunum also housed a legion in a substantial fortress in the years before it was transformed into a *colonia*, at approximately the same point in time when the site of Londinium attracted its first settlers. Londinium was transformed from a natural landscape with no known cult centres, ditched enclosures, dykes, cemeteries, or settlement into a populous town covering a relatively large area in less than a decade. It is, in part, the rapid development of Londinium, in comparison to Verulamium and Camulodunum, which both had the advantage of a substantial lead, that has led many scholars to suggest a military antecedent to explain how and why such a densely populated town could have sprung up so quickly.

Military-foundation theories

This military-foundation model of Londinium grew in popularity in the 1960s and 1970s with the advent of influential surveys of Roman Britain that placed weighty emphasis upon the importance of the army in the creation of both forts and towns, as well as acting as a catalyst of economic and social changes during the post-conquest period. An emphasis on administration, provision, and control – similar to the functions of forts – as the primary functions of towns prevailed (e.g. Frere 1967: 200–15). In this model, towns were created as units of the Roman provincial administrative programme, which included legal, judicial, and bureaucratic control as well as the civilising, educating force of cities in encouraging ‘Roman’ ways of life. The army would have had two main roles in the development of large towns: first, surveying and construction assistance as a part of the imperial policy to urbanise the province by providing and maintaining Roman-style town plans and public buildings and monuments, and, second, in determining

the location of towns – often *vicus* settlements would develop around forts or, after the army departed, towns would grow within them (Frere 1967: 240; Webster 1988). Comparisons to the development of towns in nearby Gaul seemed to emphasise the deliberate foundation of *coloniae* by the provincial authority. In a land where there were no settlements that could be considered ‘towns’, towns were created in order to serve as the seat of local government in a tribal area (self-governed *civitas* capitals), many of which had originated as forts that were strategically placed on the communication routes, which attracted communities of traders and dependants (Wacher 1978: 71–3). In this model, the indigenous population built these towns, facilitated by the administration and inspired by the Roman models they had seen in the *coloniae*. The similarities between Roman town plans and fort layouts – orthogonal street patterns with the central focus on the crossing of the main two streets – seemed to support this view, as did ancient literary accounts, such as those of Tacitus and Caesar, which often suggest that civilisation was brought to the people of Gaul and Britain through the urbanism introduced by the military.

Histories of Roman Britain (e.g. Todd 1981), however, had a tendency to be dominated by military campaigns and conquests, contradicting those who would support a sort of laissez-faire policy of self-government. The Roman imperial programme of urbanisation was seen as an active campaign of town building for the express purpose of creating administrative centres (Todd 1981: 127). Towns in Britain, in this model, popped up as a result of the economic stimulus of the army, and they functioned to facilitate taxation (Hopkins 1980; Wightman 1977).

In the last three decades there has been a significant shift away from these military- and economy-driven models of urbanisation, with urban development viewed instead as a modification to the existing social and economic structure of the tribes and their centres of power. Taxation was unlikely to be an entirely new concept in AD 43; the social hierarchy of pre-Roman societies in the south-east probably paid tribute to the chief or king

(Millett 1990). As ideas began to change, the provincial administration was seen to function primarily through the self-government of towns by co-opted, loyal, local elites who sought greater social status through their adoption of Roman material culture, architecture, and ideology; downplaying the importance of forts and the military in the governing of the province and the fort-to-town model so strongly supported by Frere and others (Millett 1990). This model of elite emulation has received criticism by those who would emphasise the diversity of towns (and the limited and divergent evidence for them) in Roman Britain and eschew all urbanisation models that pigeonhole settlements into categories and paradigms of development (e.g. Mattingly 2006: 255ff.). Similarly, greater weight is now placed on the pre-Roman topographical features found in towns and on consideration of the roles of the local elite in choosing to build urban centres to construct and communicate status, power, and their relationship to imperial authority – describing a province with a much more significant continuation and importance of local, tribal social structure and local rulers closely tied to Rome (Creighton 2006).

Equally, a blurring of the distinction between ‘military’ and ‘civilian’, ‘Roman’ and ‘native’ is characteristic of these more recent changes, which presents a significant critique to both the fort-to-town models of urbanisation and those founded on acculturation. Although there is no literary evidence that sons of British kings (as ‘hostages’ or *obsides*) were educated in Rome or campaigned with the Roman army, such arrangements were common in other parts of the Empire (e.g. Jugurtha, Jubal, and Arminius) and served to bind co-opted leaders to the centre of power (Braund 1984; Creighton 2001, 2006; Sallust, *Jugurthine War* 7; Cassius Dio 51.15.6; Tacitus, *Annals* 2.10.3). Alliance with Rome increased the kings’ power and authority, conferred prestige, and came with monetary benefits in the form of subsidies; education and training of their sons strengthened the alliance while keeping the local rulers loyal and instilling Roman values and military knowledge in the next generation (Creighton 2001). There is evidence to support the existence of this practice in Britain: a coin of Cunobelin wearing a military

helmet and traditional burials of local elite men with chain mail of a type used in the Roman armies (Lexden, Folly Lane, and Baldock) suggest the possibility that indigenous elites served in the Roman army (Creighton 2001: 6; Stead and Rigby 1989). Auxiliary units could have been based in Britain before the Claudian invasion, although the patchy literary evidence records no such thing; certainly Roman military units were deployed to friendly kingdoms elsewhere. Armies raised by British rulers who were educated and trained with the Roman army could appear, archaeologically, to be Roman auxiliary units. The fort at Gosbecks, near Colchester, has not been properly investigated, but its association with a large ditch enclosure (often called ‘Cunobelin’s Farmstead’), the Lexden cemetery, and a large dyke as well as the fort’s replacement by the fortress at Camulodunum/Colonia Claudia Victricensis (Colchester) could indicate that the Gosbecks fort pre-dates the Claudian invasion and may have been the base for troops of Cunobelin or pre-invasion Roman auxiliary units (Creighton 2001: 7–9). Similarly, the possible pre- and early Claudian dating of Samian from early levels at Fishbourne and similarity of some of the earliest timber structures to rectilinear Iron Age buildings at Gorhambury (Neal 1990) may suggest that the ‘supply base’ there pre-dated the Claudian invasion (Creighton 2001: 9–11).

Regarding London specifically, the military-built models of foundation are often based on scant and selective evidence (e.g. Perring 2011), which was reasonable, and often necessary, before the major campaign of systematic excavation during the 1970s, 1980s, and 1990s. The acceptance today of these paradigms to explain the foundation of Londinium is, perhaps, unwarranted for a settlement that has been so thoroughly excavated. The most significant factor limiting the value of these hypotheses is a lack of synthesis of all known material from the earliest settlement and the employment of approaches that focus on a limited number of features and artefact assemblages, often discussed out of context. Nonetheless, military foundation of the settlement, for a fort or a supply base constructed either by the army itself or by civilian labourers directed by army engineers

(e.g. Chapman and Johnson 1973; Hammerson 1978; Merrifield 1965 and 1983; Philp et al. 1977; Sheldon 1978, 2000), is a long-lived argument closely tied to the fort-to-town models of urbanisation popularised by Frere (1967, 1972), Wachter (1975, 1978), and Webster (1966, 1988). These assumptions have created a kind of mythical military foundation of London, never proven, but still assumed to be probable (e.g. Dunwoodie 2004: 37; Mattingly 2006: 274–5; Perring 2011).

That the *procurator* fled to Gaul so quickly during the Boudican Revolt has been put forth as evidence that he was stationed not in the early provincial capital Colonia Claudia, but, rather, in Londinium, which has direct access to the Channel and was a faster route to the Continent. This theory is further supported by the funerary monument of Paulinus' successor Classicianus, found in London (RIB 12; Collingwood and Wright 1965: 5; Chapman and Johnson 1973: 73, Merrifield 1965: 39–40). Furthermore, Tacitus did not say that Paulinus abandoned Londinium during the Revolt because it was indefensible, he abandoned it because he had too few troops (Merrifield 1965: 39–40), although this may suggest that it was only a supply base (Chapman and Johnson 1973: 73).

Plautius' crossing point

Cassius Dio's story (see also page 8 above) recounts that, after suffering losses in the battle on the north side of the Thames, he fell back to consolidate what he had gained and waited with his army for reinforcements and the arrival of Emperor Claudius. When the emperor did arrive, they all re-crossed the Thames in order to allow Claudius to ride triumphantly into battle and take credit for vanquishing the British foe. This tale, constructed at a great geographical and temporal distance, suggests that Plautius had constructed a camp south of the Thames in a secured area, probably a marching camp some miles to the south, erected before the Thames battle. The identification of Londinium with his crossing place (e.g. Frere 1967: 51; Perring 2011) has been suggested based on London's 80-mile distance from Rutupiae, the distance

noted by Caesar (*Gallic Wars* 5.11) from the landing-place to his own Thames crossing a century earlier (Maitland 1756: 8). The location of Londinium has long been thought to be geographically ideal and, therefore, of critical military importance: Londinium was located at what was the first bridgeable point along the Thames at a place where there are gravel hills on the northern shore. Such arguments suggest that Londinium must be the place where Plautius was able to cross, perhaps chosen because Caesar had previously identified the location and crossed there as well. Those who espouse this view hypothesise that Plautius constructed the 'bridge' mentioned by Cassius Dio (see pages 8–9), and that the location of such a strategic bridge in enemy territory important to the movements of troops and supplies at the headwaters of the estuary on the defensible gravel hills of the northern shore was a natural location for a military camp and, later, perhaps even a fort (e.g. Chapman and Johnson 1973: 71–3; Home 1948: 52; Merrifield 1965: 32–3; Morris 1982: 74; Perring 2011; Philp et al. 1977: 34–5). Some have estimated that the bridge built by Plautius was most likely to be located near Westminster because of the apparent trajectory of Watling Street, and that the camp should be found there (Marsden 1980; Morris 1982); some have suggested Ludgate Hill because it was bounded by two streams and would have been more easily defended (Home 1948); while others have proposed Cornhill south of the Aldgate ditch (Chapman and Johnson 1973), or Cornhill south of the Bishopsgate ditches (Perring 2011) (see also pages 14, 37, 44–5, 68–70, 93–4 below).

Claudian camp

The significant military installations dating to the immediate post-invasion period in the south-east are situated along the coasts. Rutupiae was transformed from an initial temporary Claudian camp constructed around the time of the invasion into a more permanent form of port and supply base, particularly for grain, in the following years (Cunliffe 1968: 232–4). It is logical that such a supply base would have brought in goods and

people that eventually reached the legionary fortress at Camulodunum, which was possibly also served by a supply base or port for receiving water-borne goods and people at Fingringhoe (unfortunately destroyed without proper recording) at the mouth of the Colne. Such a port could have connected the fortress and *colonia* to ports in east Kent, the south coast, and the Continent. Similarly, Fishbourne probably also served as a supply depot in the early Claudian period, perhaps related in a similar way as a port to Noviomagus as Fingringhoe was to Camulodunum, although it too would have been a primary port of entry for goods then sent on to wherever the army required (Cunliffe 1971: 72–5). Communication between these three military centres in the south-east is likely to have been important in the years immediately following the invasion and before the establishment of a town at Londinium. Large-scale movements of men and carts over land could have been accomplished by means of trackways with fords and barges employed to cross rivers, however, and the transport of bulky goods, such as grain, over land would have been costly and time-consuming. Links between these centres and to the Continent are most likely to have been sea-borne in the earliest period and did not necessitate extensive cross-country road construction contemporaneous with their initial phases; roads and a Thames crossing may not have been important if transport by ship was faster and more economical (Millett 1990: 56).

Many have argued, however, that the army would have constructed roads to link these settlements and a bridge to cross the Thames very soon after the invasion, directly linking the construction of communication routes to military movements detailed in ancient texts. It is often thought that such a bridge would have been a strategic location and the site of a military installation of some kind (Perring 2011). Unfounded assumptions that the army built roads and bridges in conjunction with their strategic movements in Britain (e.g. Frere 1967: 57) have led to problems of dating and interpreting camps, forts, roads, and settlements across the country. Plautius did cross the Thames with his army on his way to Camulodunum from the initial landing point at Rutupiae or

Noviomagus (Cassius Dio 60.20.5), but there is no evidence to suggest that this campaign was immediately followed by road and bridge construction. Like the Thames crossing of Caesar before him, where Plautius crossed in AD 43 is unknown, although many scholars have linked the site of Londinium to these historically attested events. The identification of Londinium is, however, pure speculation.

An authority or a group of authorities – the army, engineers directed by the army, the imperial administration, and/or those in cooperative positions of power among the indigenous British population – cleared and drained the land and built roads and bridges in the south-east of Britain in the decade after the invasion, ostensibly to facilitate communications, trade, and the movement of people and goods (Davies 2008; Margary 1955). The route west along the Downs from Rutupiae, north across the Thames (perhaps at a ford), and along a trackway north and east to Camulodunum is probable. There is no concrete evidence that the army rapidly completed a campaign of road building to achieve this end, although land clearance and more ephemeral trackways would be less archaeologically visible and more difficult to date. The fortress at Camulodunum was a major base of operations and housed a legion from about AD 43 to 49 (although post-dating an earlier ephemeral military installation of some kind) and was transformed into a *colonia* of veterans, which marked a widespread change in the army's strategy around AD 49 (Crummey 1984: 5; Cunliffe 1968; Tacitus, *Annals* 12.32). There would have to have been a way of moving the legion and all of its heavy carts away from Camulodunum, and the construction of the road to the Thames bridge is undoubtedly linked to that shift. Dendrochronological evidence from London (at the site of One Poultry) suggests that the road system between Calleva/Verulamium and the Walbrook crossing (Watling Street) and, perhaps, the same road continuing south and east to Rutupiae (Watling Street) was not finalised until after about AD 47/48 (see pages 21–2; Tyers 2011), which suggests that the roads and bridge at London were conceived as part of the wider changes. Although the presence of a

conquest-period fort at Verulamium has been argued by Frere (1967: 37–44), Niblett's (2001: 56) analysis of the available evidence and evaluation of Frere's reasoning seems to disprove its existence. Certainly, as an inland location, trackways or roads would have been necessary to reach Verulamium, but the identities of the people organising the construction of the roads, as well as the dates of such roads, are largely unknown.

Regardless of the dating of these roads and of the Thames bridge, nearly all researchers agree that either some authority intentionally constructed the roads in the south-east all to intersect at Londinium (see Figure 1), which already existed, or that they intentionally constructed the roads to intersect at the place where they planned to build Londinium (e.g. Sheldon 2000: 131; Drummond-Murray et al. 2002: 14; Perring 1991: 5; Watson et al. 2001). Most scholars suggest that it is simply impossible that, if Londinium did not already exist, the road-building authorities could have constructed the roads and not planned a town, trading port, supply base, or defensive position at the intersection of roads where there is also a crossing over a major navigable river with the suitability of a port, leading to the Channel, and therefore able to link the Continent to the road network in Britain. In academic literature these are not controversial scenarios, and one or the other is either intimated or directly declared by nearly every author who has studied the immediate post-invasion period. Yet, simply because, in hindsight, this crossroads appears strategic and important, it is not a proven fact that its location was chosen because the town already existed or that the roads and bridge were built to facilitate the creation of the town – the earliest evidence has never been put together to explain how the roads were built and how they relate to other features of the early settlement. Roads and bridges were constructed all over the new province, creating several important crossroads, and we cannot simply assume without significant supporting evidence that because a particular settlement seems to be phenomenally well suited to trade, communication, and defence that the administration or the military necessarily planned and constructed a settlement there. It is more

valid to propose the hypothesis and test the evidence against it – accepting, if necessary, that despite all logical arguments to the contrary, the authorities built the roads, but simply did not plan the settlement.

Without this detailed examination of the evidence it is still possible to propose a third explanation for the construction of the roads and the bridge that does not presuppose an existing settlement at Londinium and that is not integrally related to the planning of such a settlement. The Calleva–Camulodunum/Colonia Claudia road was probably built between the invasion in AD 43 and the time Colonia Claudia was officially founded as a *colonia* in AD 49 (Tacitus, *Annals* 12.32) when the army and imperial authority sought to reorganise and consolidate power in the south-east generally and moved the legionary forces west and north as a part of a change in military policy. A programme of new roads and bridges to facilitate communications and trade in the south-east was part of the overall strategy – the roads and bridge at Londinium may fit in with that tactical planning. The Calleva–Colonia Claudia road served the purpose of connecting the new *colonia* to important centres in the west and, via Watling Street, to coastal ports in the south-east. Watling Street was probably contemporaneous in Roman construction to the Calleva–Colonia Claudia road, but perhaps already existed as an ancient trackway, south of the Thames. Watling Street originated on the east coast of Kent at Rutupiae (Millett 2007b) and continued westwards; it was, therefore, shortest overland to link Colonia Claudia, which is in the east, to ports in Kent, also in the east, by way of roads and a bridge following the most direct route, which would be that which crossed the Thames at the easternmost point. The other option was to link the Calleva–Colonia Claudia road to the Thames further upstream (west) and thereby offer a river route east to the ports in Kent. The road-planning body would also presumably have wanted to link Colonia Claudia to ports on the south coast via Stane Street, which would require it, like Watling Street, to cross the Thames. If it were most important to link Colonia Claudia to Calleva and the west, as opposed to the ports in Kent, surely they would have built the Calleva–Colonia Claudia road in a

more perfectly straight line; it would have crossed the Thames approximately near Eton, where the river is narrow and shallow and easy to bridge. As this is not the case, it is far more likely that greater importance was attached to linking new urban centres to the Kent and Sussex ports via Watling Street and Stane Street. Immediately east of Londinium the river begins to widen, and to become too wide to be easily bridged, and so the site of Londinium was the easternmost bridge point possible. Stane Street would have been directed at this bridge so that it could link to the ports in the south as well as Colonia Claudia and centres to the west. Ermine Street has not been excavated in London in the pre-Boudican period and probably did not continue as far as London at the time. As there were no major LPRIA settlements along the Thames and it was the boundary between two tribal areas, it is possible that the administrative authority thought only of this Thames bridge in the way just described: the easiest way to link Colonia Claudia to important ports in the south-east via Watling Street and Stane Street, and not, as is so frequently assumed, as the centre of the road network where the military and administrative authorities actively chose to construct a centre of trade, communications, and government within an overall master plan.

Such intentional planning on the part of the military and imperial administration has also been argued from the grid-planned layout of the Cornhill part of early Londinium (maps of which appear in Marsden 1980: 18, 30; Perring 1991: 7, fig. 3, 11, fig. 5; Rowsome 2008: 28, fig. 1.3.3; Swain and Williams 2008: 34, fig. 1.4.1), with between one and four east–west and one to six north–south streets on Cornhill, centred on the gravel-metalled open area that became the forum site in the Flavian period (in Southwark and on Ludgate Hill the roads are not orthogonal). Wachter (1975: 80, 87), for example, argued that London began as a not-as-yet located pre-AD-50 fort that developed as a *vicus* post-AD 50, on the basis of the street grid discussed by Merrifield (1965: 118). The evidence for the street arrangement in Londinium and a detailed discussion of the sequence of early road construction has never been undertaken,

however, and there may not be sufficient evidence to support the published town plans. In the absence of a pre-Roman *oppidum*, some have assumed that there was likely to have been a substantial camp or even a fort that established the structure for a later settlement and eventually attracted the merchant immigrants described by Tacitus (*Annals* 14.33). The grid-plan of the Cornhill settlement has been compared to Roman forts and *coloniae* in Britain, constructed by and for the military (e.g. Merrifield 1965: 34–5).

Grid-planned towns can be understood in contrast to organic roadside ribbon development or ditch-enclosed farmstead settlements, which were almost certainly not planned by an overseeing authority in the same way. Certainly, extensive urban planning is evident in the published plans of pre-Boudican Londinium, and these plans show a town that centres on a main T-shaped crossroads and a forum- or *principia*-like area. Grid street plans originated as a method of urban planning in Greek colonies, and became the normal way of establishing new towns in Roman Italy later in the third century BC; such towns influenced military fort design and not vice versa, as is often supposed (Gros and Torelli 1988: 130–1). However, in Britain especially, forts formed the basis for some Romano-British *coloniae* and towns, such as Glevum and Colonia Claudia (Crummy, 1988; Hurst 2000; Webster 1988). Often, towns in Roman Britain planned on a grid cannot be differentiated as newly planned or deriving from earlier forts on the basis of their plans alone (Crummy 1982: 133) and the two-way nature of the exchange of ideas between civilian and military architecture and planning must not be understated. Street grids need not represent planning by the military or imperial administration. Town grids in nearby Gaul were less representative of military authority and more of the urban aspirations of the local elite; such planning suggests social changes, such as a pledge of future urbanism as well as a moment of foundation or re-foundation when internal space and activities within a settlement were (re)organised (Woolf 1998: 119–20). As was discussed above (page 12), some of the indigenous British elite could have gained knowledge of Roman

towns through service in the Roman army or education abroad (Creighton 2006).

The lack of evidence for an early camp or fort in Londinium has been explained away as later Roman truncation and levelling or the absence of archaeological techniques sufficiently prepared to recognise and record ephemeral features, such as military ditches (Chapman and Johnson 1973: 72; Home 1948: 54, 62; Merrifield 1965: 39; Morris 1982: 74–5). Where they have been found, V-shaped ditches are almost universally hailed as evidence of military activity and, sometimes, an early camp or fort – the assumption being that ditches with V-shaped and so-called ankle-breaker profiles, found also in forts and camps (e.g. Camulodunum: see Crummy 1988: 29), are solely defensive in nature (Chapman and Johnson 1973; Perring 2011). The Aldgate ditch had the handle of a legionary *gladius* in its fill, considered by some to represent further evidence that it was constructed by the military (Chapman and Johnson 1973: 3, 5–7). Most scholars today would argue that the extensive excavations carried out in the last forty years have continually failed to find any evidence of military settlement or defences resembling plans and features known from other Roman camps or forts (Perring and Brigham 2000: 125–6; Wallace 2013), although there are notable exceptions (Perring 2011; Wilson 2006).

One artefact-based effort used coin data to demonstrate the early military character of Southwark (Hammerson 1978). More than 90 per cent of the roughly 140 Claudian coins found during SLAEC/LAMAS excavations up to 1976 were irregular Claudian coins struck around AD 50. Irregular Claudian coins were probably minted by the army in Britain, with the approval of the administrative authorities, between AD 47 and AD 64, to supply much-needed small change after the closure of mints by Claudius, although the shortage in copper-alloy coins was at its height in the early reign of Nero after AD 54 (Reece 2002: 39–41). Such coins apparently represent a large portion of assemblages in some early military forts such as Richborough, Fishbourne, Fingringhoe, and Sea Mills (Sheldon 2000: 131; also Reece 2002: 39) and, as they were also produced by the army, some scholars

therefore suggest that such a ratio of regular to irregular issues of Claudian coins is indicative of a military presence (Hammerson 1978; Sheldon 2000).

The army or administrative authorities in Britannia produced (or perhaps merely tolerated the production of) the irregular Claudian coins as a part of the official programme of supplying coinage to the province and rectifying the lack of small change caused by Claudius' closing of the mint of Lyon and the cessation of production of new *asses* at the Rome mint (Boon 1988: 118–23). The shortage of small change in the western provinces was yet more severe in the reign of Nero, but the reopening of the Lyon mint in AD 64 probably put an end to the need to copy coins in large numbers (Boon 1988: 120–1). The argument that large proportions of such coins in certain site assemblages represent military installations is flawed because nearly all Roman coinage, irregular and official, entered circulation through the army and state. It is also likely that soldiers used such coins to purchase goods and services from civilians, thus distributing the coins into that population. Hammerson's argument also neglected to acknowledge that coins could be valued by the merchant accepting them, who would accept such coins, but perhaps not for their 'face value' – in fact, the military men would have been far more likely to attempt to use these irregular coins in order to get rid of them, and so one might even expect them in settlements where goods and services were being provided in exchange for coin payments (T. Buttrey, pers. comm.).

Yet, perhaps it is not necessary to debate this point further because the evidence for early military occupation provided by this coin profile may be somewhat flawed (Hammerson 2002). Only 19–28 per cent of the Claudian coins in Hammerson's 1978 study were excavated in pre-Flavian levels and, therefore, the majority of the Claudian coins (regular and irregular) were in circulation for far longer and are not necessarily representative of Claudian-period activities, and certainly not representative of pre-Boudican coin-loss patterns (Hammerson 2002: 237). A context-based approach is a more valid basis for interpretations of site function based on coin use and

loss, as patterns of coin loss vary greatly from site to site (Hammerson 2002: 234; see also pages 120–3).

Supply base

A slightly more palatable model was devised that still allowed for military initiative and occupation, while providing very little evidence: that of the military supply depot, the archaeological character of which would be similar to a civilian trading port with evidence of orthogonal planning and military artefacts and construction techniques (Chapman and Johnson 1973; Dunwoodie 2004; Hill and Woodger 1999; Philp et al. 1977; Mattingly 2006; Sheldon 1978, 2000). Such a settlement would have served as a port of entry for officials from the Continent, a storage and redistribution centre for goods imported for military use, and also a base of operations for provincial administration. Cunliffe introduced the concept of a military supply base at strategic points of entry in pacified territory in his interpretations of storage structures at Richborough (Cunliffe 1968: 14, fig. 6) and Fishbourne (Cunliffe 1971). A useful model and fresh concept at the time, it aided in the move away from the theory of a Claudian camp in Londinium.

Large-scale timber buildings at Bush Lane House were interpreted, because of their construction on wooden piles as at some Roman fort sites, as military constructions, possibly store buildings or granaries belonging to a riverside fort (Chapman and Johnson 1973). Also, early ephemeral burning associated with an irregular Claudian coin at the site of St Dionis Backchurch underneath the large open gravel area north of the main crossroads, where the *principia* would be expected in a fort, has also been interpreted as part of an early Claudian supply base on the basis of the date, the arrangement of the streets, and the later structures arranged orthogonally and supported on piles, as at Bush Lane House (Philp et al. 1977). Wachter (1975), however, rejected the stores-depot theory because Tacitus described the pre-Boudican town as an unfortified mercantile centre and Wachter thought it improbable that London could have originated as a stores depot when Richborough was thriving in that role.

More recently, the V-shaped Aldgate ditch on Cornhill and another at the Park Street site in Southwark, along with a dump of early masonry material by the waterfront and the evidence of the presence of soldiers in Londinium in the second and third centuries (e.g. the Cripplegate Fort and the Vindolanda tablets), have also been proposed as evidence of mid-first-century military occupation likely to represent a supply depot (Mattingly 2006: 273–5). The dump of masonry material has been interpreted as connected directly to an early military or official masonry building related to the *procurator* (Mattingly 2006: 275, an idea perhaps originating with Merrifield (1965: 34–5) and previously refuted by Marsden (1980: 15)) – an odd suggestion which implies that there can be no Claudian/Neronian buildings of stone in Britain that are not definitely military in nature. Like many of the foundation theories, this particular grouping of evidence is somewhat random and does not credit the vast data available. Although the popularity of the application of this theory to London has emerged as a result of the failure to locate evidence for a camp or fort in the last thirty to forty years, it is not a wholly new idea (e.g. Maitland 1756: 15).

Civilian trading port

If nothing survived of the *Gallic Wars*, *Annals*, or the history of Cassius Dio, would we be so ready to assume that the Roman army was responsible for the foundation of Londinium? Caution must be used in linking changes visible in the archaeological record in the mid-first century AD to the biased and fragmentary ancient documents (Creighton 2001). Counter-arguments rooted in re-evaluations of provincial urbanism (e.g. Woolf 1998; Creighton 2006) suggest that London originated as a civilian trading port, aided (or, at the very least, unhindered) by the imperial administration (Haverfield 1911: 149; Marsden 1980; Morris 1982; Merrifield 1983; Millett 1990, 1994, 1996; Wallace 2013; Williams 1990, forthcoming). Few have suggested that civilian merchants could have had the skills or resources to plan a new orthogonal settlement themselves, although Millett

(1990: 69–91, 1994) has argued that, in southern Britain, the military was only of peripheral importance to the development of towns.

Londinium's original civic status is unknown, but it was not a *colonia* or *municipium* at the time of the Boudican Revolt (Tacitus, *Annals* 14.33) and, because of this ambiguity, it was unlikely to have been planned as an administrative centre, as Colonia Claudia certainly was (Millett 1996). The Cornhill orthogonal, planned settlement does not resemble a square fort or a camp with a network of ditches and other defences or significant boundaries (Marsden 1980: 11–15) and, although the administration may have accepted and even aided the creation of a settlement, a town of ambiguous status is unlikely to have been planned directly by the administrative authorities themselves (Millett 1996: 34). The reason Londinium was settled is likely, therefore, to have another explanation.

This civilian trading-port model suggests that Londinium was organised and settled by foreign merchants, traders, and other civilians who chose the location for its easy access to Continental trade via the Thames and the Channel, for its position at the centre of the road and communication network, and because it lay on a politically neutral boundary unconstrained by local economic and social control where trade and commerce would be unhindered by and unthreatening to the long-established indigenous elite (Marsden 1980: 17, 19; Millett 1990: 89). While some suggest that the civilian town-builders must have been directed by military supervisors (e.g. Marsden 1980: 19, 1987: 17), Millett (1994: 429, 434, 1996: 34) proposed that features of the settlement that appear to have been planned by a centralised authority could just as easily have been the result of private initiative, namely, the Cornhill planned core. Immigrant settler-merchants from the Continent could have planned a trading settlement on Cornhill in an orthogonal layout, similar to Roman town plans with which they would have been familiar (Creighton 2006), and the open gravel area compared to a *principia* by Philp et al. (1977) could have been a commercial marketplace (Marsden 1980: 20–1, 1987: 19–20; Millett 1994, 1996; Rowsome 1998: 38).

The growth of the settlement along the roads might have happened in a less-organised 'boom', leading to the separate zones on Ludgate Hill and in Southwark, where inhabitants of different backgrounds would have settled (Millett 1994: 433). Londinium could, therefore, have been a *conventus civium Romanorum* – a self-governing settlement of citizens, freedmen and their dependants (Millett 1994: 434, 1996: 35; Wilkes 1996), perhaps referred to as *cives Romani consistentes Londinii* (Haverfield 1911: 169). The weakness of this particular position is that it does not sufficiently explain the relationship of London's development to the construction of the roads and the bridge, which most scholars would consider a critical point (see pages 14–16 above).

A variation of this model is that the purely civilian town was planned and its construction organised by the imperial administrative authority in conjunction with the road network for the purposes of encouraging and facilitating the importation and exportation of resources and goods, influencing local populations, controlling territory, and governing (Perring 1991; Williams 1990, forthcoming). There is new evidence for such a theory concerning the role that the military played in civilian town-building, which undermines Millett's argument that the military had only the most peripheral involvement in the construction of towns. At the Augustan town at Waldgirmes in Germany, it appears that the army, while on campaign in Germania, constructed a civilian town, the inhabitants of which seemed to enjoy peaceful trade contacts with the local population, as evidenced by the unusually high proportion of locally produced pottery in the ceramic assemblage (von Schnurbein 2003: 98–104). This town was, however, surrounded by a double-ditch system with earth-and-timber ramparts, features also common to forts and possibly indicative of military-assisted construction.

After the invasion, the land where Londinium would be built could have been designated as *ager publicus*, land owned by the state, although there is no documentary evidence to support this theory (M. Millett, pers. comm.; Roselaar 2010). Newly conquered land was divided into private ownership and *ager publicus* beginning in Italy

during the Republic (Roselaar 2010: 290ff.). *Ager publicus* could be made available to Roman citizens in Britannia, but which tracts were designated in this way, the precise legal method of its sale and disbursement, its role in the provinces, and the use-rights that local populations continued to hold is not fully understood. If the area of Londinium was designated as *ager publicus*, then the *procurator* was probably able to discharge it, for monetary gain, as he wished. Therefore, he could have provided the official dispensation to allow the initial settlement of a new group of people wishing to establish a trading port. Perhaps the debate should, however, be steered away from these single-cause theories and encouraged, instead, to focus on the tactical, social, and economic motivations of foundation and immigration to the new settlement (Williams 1990: 599–605).

It is important to consider these hypotheses as they relate to the creation of a town at Londinium, and to test the evidence of excavated remains against them. Addressing motivations, social implications, and the roles of diverse groups may, however, be more important. The evidence can be analysed to assess the degree of influence and impact that the native population had upon the town and their interest and involvement in the town's earliest years as well as how the notion of the townscape might be a way to understand how provincial immigrants fashioned their idea of Rome in a new land. Their choice of landscape characteristics, location within existing tribal-political territories, town planning and infrastructure, and planned industrial, commercial, and domestic organisation are all significant reflections of how they conceived of the idea of a town, and its significance and purpose to their daily lives.

The pre-Boudican period in Londinium

Although it is now widely agreed that Londinium was established as a settlement between the Claudian invasion in AD 43 (Cassius Dio 60.19) and the Boudican Revolt in AD 60/61 (see pages 9–10 above), attempts to date the foundation precisely are constrained by the limitations of the evidence, so no specific date within this

eighteen-year period has ever been agreed upon. There were no coins minted in early Londinium to mark the date, nor are there inscriptions that date to the pre-Boudican period. No surviving ancient texts mention London before Tacitus (*Annals* 14.29) in relation to the fate it suffered during the Boudican Revolt. The question of dating the earliest settlement must, therefore, be based on archaeological evidence.

Foundation dates

Although significant evidence exists to demonstrate that the site was certainly inhabited during the 50s AD (e.g. dendrochronological evidence, coins, pottery), there have been four important arguments made by artefact specialists that relate specifically to attempts to date the earliest Roman-period settlement in London: ceramic evidence suggests occupation beginning around AD 50/55 (Davies and Tyers 1983; Davies et al. 1994; Tyers 1996); coin evidence from Southwark at one time was thought to suggest occupation beginning in the late Claudian period, around AD 50–54 (Hammerson 1978; but see contradictory argument in Hammerson 2002); dendrochronological evidence at the site of One Poultry suggests that the main east–west road was constructed during or after the winter of AD 47/48 (Tyers 2011); and at the Regis House site a revetment was constructed at the Thames waterfront in or after AD 52 (Brigham and Watson forthcoming).

Ceramics

The ceramics from London are generally later in the known sequence of Roman pottery in Britain than common fabrics and forms found at invasion-period sites in southern Britain (Davies and Tyers 1983). Analysis of the ceramic assemblages from three sites with presumed Boudican fire debris west of the Walbrook found that early types of southern Gallic Samian ware, commonly found at invasion-period sites such as Camulodunum, Fishbourne, and Rutupiae, were rare or absent (Davies and Tyers 1983: 25). While these levels held a significant quantity of Samian ware, it was all broadly Neronian in

date (i.e. dating to c. AD 54 or later). Similarly, key early pottery fabrics, such as *terra rubra* and *terra nigra* were also nearly absent, which can be contrasted with their quantities at invasion-period sites, such as Chichester or Canterbury. It might be possible to identify the earliest sites in London on the basis of absence or near-absence of Verulamium Region White ware (VRW), which was very common by AD 60/61 (i.e. occurs frequently in the fire debris and occupation levels below it) (Davies and Tyers 1983: 23). Sites with large pre-Boudican pottery assemblages that contain no VRW might represent earlier occupation than the inception of the VRW industry (c. AD 50/55). Because VRW is so abundant on almost all pre-Boudican and later sites, its absence may best be explained by a date before the building of the VRW kilns and production of the ware. VRW cannot, however, be dated accurately from the archaeological evidence of production or occupation sites, but is certainly post-invasion and very common by AD 60/61 (Davies and Tyers 1983: 23; Seeley and Drummond-Murray 2005). Similarly, it has also been argued that excavations in the area of bridge/river revetments and those of the early roadside ditches in Southwark have only found pottery dating to the early 50s (Sheldon 2000: 130). These road/ditch-associated artefacts, however, are in the fills of the ditches and therefore cannot be used to date the construction of those ditches or of the associated roads securely.

These arguments based on ceramic dating are highly problematic. Established, conventional ceramic dates originally derive, of course, from associated artefacts, such as coins, or contestable historical-event horizons (such as the AD 60/61 Boudican fire-destruction debris horizon or AD 43 invasion of Britain) and can only date the deposition of those objects, not their production (Millett 1983, 1987). Ceramic dating that attempts a refinement of less than, perhaps, a decade is, therefore, extremely problematic. As a town unlike any other in the province (i.e. not a fort, not a *municipium*, not a *colonia*, not an *oppidum*, not a *civitas* capital, etc.), Londinium's consumption patterns might be expected to be somewhat different from other sites occupied in the first decade after the AD 43 invasion and the absence of *terra rubra*, *terra nigra*,

and certain southern Gallic Samian forms might be understandable, or even expected. Additionally, their absence may be more a reflection of the lower volume of trade early in the occupation of the settlement or that early Samian was not as widely available as that of the later period, increasing over time as the settlement grew. These consumption and economic factors may play a larger role in our interpretation of the ceramics than the chronological factors. Additionally, it is possible that some ceramic forms and fabrics had social significances that affected their use and deposition. For example, Millett (2000) conducted a study that found that *terra rubra* and *terra nigra* are common in burial contexts in Verulamium, but nearly absent in the settlement.

Coins

For many years Hammerson's (1978) study of about 140 coins from the 1972–4 SLAEC/LAMAS excavations in Southwark (see page 17 above) was considered of great significance (see also Sheldon 2000: 131), but as those coins were excavated primarily in post-Flavian contexts, the import of the argument is rather diminished (Hammerson 2002). Also, Reece (2002: 39–41) places a wider date range on these coins: after AD 47 through the first decade of the reign of Nero, until AD 64.

Dendrochronology

The timber lining of a drainage ditch beneath the main east–west road at One Poultry is the earliest dated Roman-period timber with sapwood and bark (which is crucial for precise dating) from a stratified context in London (Tyers 2011). The tree used to make this drain was felled in the winter of AD 47/48, and, although it cannot be proven that the wood was not from a reused timber or felled long before it was used, the lack of evidence for immediate pre-Roman Iron Age occupation in the area suggests that it did not come from an earlier nearby structure. It is far more likely that it was felled as part of the land clearance for the specific purpose of draining the land and building the roads (see Chapter 2).

The main east–west road on Ludgate Hill (the *Calleva–Londinium* road), therefore, post-dates the winter of AD 47/48, as do the later structures and occupation deposits along that road, and, by association, probably the equivalent road on Cornhill as well as all later occupation, north of the river at the very least. Unfortunately, although the main north–south road in Southwark was built on a wooden raft, none of the timbers used to construct this bedding has ever been successfully dated.

This dendrochronological date also draws attention to evidence that refutes the supposed post-AD 50 date of certain ceramic types. The construction cut for the AD 47/48 timber drain underlying the early main road at One Poultry intruded into, and therefore was later than, a stratum containing VRW, Eccles ware (ECCW), and Alice Holt/Surrey ware (AHSU), all of which have the accepted early date AD 50 (Tyers 1996: 180–201). The absence of these common types is often taken to signify earlier levels and their presence to indicate activity post-dating AD 50. Given the large scale of excavations at One Poultry in comparison to nearly all other sites in London, it is likely that the absence of such types is a by-product of the smaller volume of sediment excavated at other sites and should not necessarily be taken to date these early levels. This possible earlier dating of VRW indicates that it was probably in production two to three years earlier than commonly thought, which fits well with Millett’s model of low volumes of breakage, discard, and deposition in the early production years.

Some of the waterfront use has a *TPQ* of around AD 52, as is demonstrated by the dendrochronological date of a riverside revetment west of the bridge at Regis House (Brigham and Watson forthcoming; Watson et al. 2001: 32). Although a study of coins from the area of London Bridge suggested that the Roman bridge was built around AD 68–81 (Rhodes 1991), it is likely that the bridge was in use at the same time as the roads and port structures. The dating evidence for the pre-Boudican waterfront is scant because later foreshore development, in the form of land reclamation as well as dismantling earlier timber structures, has obscured the earliest waterfront (Milne 1985).

The next-oldest waterfront date, *TPQ* of AD 54/55, is from the piles supporting a revetment structure at Arthur Street (Swift 2008). This revetment cannot, however, be shown to be contemporaneous with the earliest bridge and may be a later repair or improvement. Indeed, the revetment certainly was constructed after earlier quarry pitting in the area, which is very likely to have been contemporary with the road construction, as it is on nearly every site (see Chapter 2), perhaps AD 47/48. The revetment itself reused pointed timbers, probably from fence posts (these particular timbers were not, however, datable), indicating that some land divisions were in place and then dismantled before the construction of the revetment. Therefore, the AD 54/55 date of this revetment is consistent with occupation beginning a few years earlier (and also the construction of the bridge and the north–south roads leading to it), perhaps at the same time as the east–west road, in or after AD 47/48.

Given the size of the settlement at the time of the Boudican Revolt in AD 60/61 and the fact that several areas show redevelopment and rebuilding during the pre-Boudican period, the town could not have been very young at the time of the Revolt, which is why most agree that it must have been founded at least five years beforehand, about AD 55. On all sites the two main roads are the stratigraphically earliest features (see Chapter 2) – the north–south Cornhill road leading to the bridge probably pre-dates revetments associated with that bridge, and so pre-dates the revetment with a *TPQ* of AD 52. The archaeological remains suggest that Londinium was not an invasion-period fort or camp, and the artefact-dating evidence also seems to suggest that it was not founded until, perhaps, five (or ten) years after the invasion, but certainly after AD 47 when the main east–west road was built, tightening the span even further to between around AD 47 and 52.

The fire-destruction horizon

A widespread fire-destruction horizon dating to about AD 50–70 aids the chronological specificity of this project by isolating the archaeological strata so that the earliest

settlement can be examined. Because of the fire-destruction horizon and lack of LPRIA settlement, Londinium is a site where a short occupation period immediately following its foundation can be separated out with a relatively high degree of confidence. The historical bounds of this analysis are the foundation of Londinium (whenever it may have been) and this major fire, probably caused during the Boudican Revolt of AD 60/61. Even without ancient texts detailing the Boudican Revolt, the archaeological choices made in the following chapters would probably be the same; the focus is on the settlement up to this destructive and well-dated fire. Nonetheless, as the first mention of Londinium in the ancient sources is in relation to the Boudican Revolt and because a relationship between the archaeology and the ancient texts has been made, the story of the Revolt merits a brief summary.

According to Tacitus (*Annals* 14.29–33), at the time of the planting during the year of the consulship of Lucius Caesennius Paetus and Publius Petronius Turpilianus, King Prasutagus (who had signed a treaty with Rome and continued to rule his kingdom) of the Iceni tribe in East Anglia died, leaving his wealth and lands to the emperor Nero in an effort to establish his loyalty and protect his family and tribe. The Roman army in Britain interpreted the gesture rather differently, and looted his lands, robbed and dispossessed his people, and flogged and raped his wife and daughters. The Iceni exacted their revenge in a rebellion of confederated tribes, led by Prasutagus's wife, Queen Boudica. This rebel army, perhaps 50,000 strong, destroyed three towns – Colonia Claudia, then Londinium, and, finally, Verulamium – towns that both represented the occupying force and were inhabited by the 'Romans' and their supporters. Boudica's army slaughtered all people they encountered, and looted and burnt homes and public buildings. The Roman army, most of whom were on campaign in Wales at the time, could do very little to protect these undefended towns, but the people in Londinium had a few days' warning between the attack on Colonia Claudia and the arrival of the rebels in Londinium. The governor, Gaius Suetonius Paulinus, arrived in Londinium with a

small group of men in time to escort any of the people who wished to flee, and, because he lacked enough troops to defend it, abandoned the town to its fate. Tacitus and Cassius Dio described a horrific scene, allowing for no survival or mercy. The catastrophic destruction, in the form of intentional and total burning, is marked in all three towns by a thick layer of fire debris. The Revolt ended in AD 61 when the rebel army met Suetonius's army in battle at an unknown location, where the Roman forces were victorious, although they were heavily outnumbered (the so-called Battle of Watling Street).

The Roman-period skulls (more than a hundred of them) found on sixteen sites between 1838 and 1967 from the upper Walbrook have often been seen as victims of this slaughter (RCHM 1928). Three of the skulls have been C-14 dated to 100 BC–AD 390, 110 BC–AD 130, and AD 140–160 or later (Bradley and Gordon 1988: 507). Forty-eight crania have undergone osteological analysis; they were predominantly young (forty-two young–middle adult, one child of ten–eleven years) males (thirty-nine male, eight female) (Marsh and West 1981: 89–91). Tacitus (*Annals* 14) suggests that those who stayed in Londinium were old people, women, and children too weak or fond of the town to leave, which does not accord with the skeletal evidence. Furthermore, the skulls bore no signs of trauma and appeared to have been exposed and disarticulated from their mandibles and other bones prior to deposition in the stream, treatment more likely to be associated with religious deposition in a watery location (Marsh and West 1981: 94). Removal of the cranium and deposition separately from the body or out of original placement within an inhumation is a rite well known in Britain (Crerar 2012). It is more likely that those who perished in the sacking of the town were buried when the inhabitants returned to reclaim their properties.

Evidence of the fire probably caused during the Revolt has been found on at least fifty-six sites in the City of London and Southwark (see pages 77–8), and artefact dating (such as coins, ceramics, and dendrochronology) has shown that it occurred between AD 50 and 70. Without the aid of ancient historians, archaeologists

would posit that the fire debris in different excavation trenches represented one great contemporaneous fire. Given the widespread nature of the burnt strata of the same date in Londinium, Verulamium, and Colonia Claudia, we may reasonably make the link to the AD 60/61 Boudican Revolt. Normally, determining contemporaneity across several – if not dozens – of trenches in a modern urban centre is almost impossible to within less than a few decades using ceramics, coins, building material, and other finds. In Roman Britain we have these three exceptions, where the horizon of burnt debris covers large areas of each settlement and establishes a contemporaneous stratum across the earliest levels of non-contiguous excavation areas.

Clearly, fires would have been common in a town dominated by closely spaced timber buildings, and several small-scale fires probably occurred in the years before AD 60/61. Identifying the Boudican fire-debris level is, therefore, sometimes problematic on sites with evidence of more than one early fire (see also Snodgrass 1987: 49). Nonetheless, factors such as the presence of common artefact types and the absence of those types thought to post-date AD 60/61 provide evidence to support contemporaneity and associate fire-debris levels with the Boudican fire. Likewise, sites that escaped the fire without burning, especially those where there were no timber structures, or that were heavily cleared afterwards, are impossible to link to the historical event.

In the days before the fire the inhabitants had warning of the Revolt and the fate of Colonia Claudia. Many, therefore, probably left rapidly, taking with them only valuables and other goods that they could carry. Some remained behind and perished in the onslaught, leaving their belongings buried in the debris. Clearly, removal of goods by those fleeing the town, looting by the rebel army, reclamation by returning inhabitants, and recycling activities by others after the suppression of the Revolt all acted to deplete the primary deposits within buildings destroyed (and otherwise preserved) by the fire. Nonetheless, given these deposition and abandonment conditions, objects and structures in

pre-Boudican Londinium are likely to have a more significant relationship than most other sites. This project is not the first to realise the potential of the Boudican horizon: several site reports (e.g. Drummond-Murray et al. 2002; Dunwoodie 2004; Hill and Rowsome 2011b) and ceramics studies (e.g. Davies and Tyers 1983; Millett 1983, 1987) have previously taken advantage of Boudican fire-debris to compile contemporaneous assemblages with success.

Artefacts on use-surfaces and within occupation debris are more likely to have been used and deposited on site, as primary-use deposits or de facto refuse (see Schiffer 1987). It is possible to make this hypothesis particularly in the case of the buildings destroyed in the Boudican Revolt; sites abandoned quickly (under conditions of war) and catastrophically destroyed are more likely to contain the systemic inventory of objects in use in the structure. The inhabitants are less likely to have engaged in curate behaviour (removing items to their next location), taking with them only what they required and valued in their haste to leave. Destruction deposits can, however, be problematic because they can also be redeposited, or represent disuse and the initial phase of the next period of use. One must also avoid conceiving of the Boudican fire horizon as a kind of Pompeii-like petrification of the town, sealed in time beneath the debris. Even Pompeii has been affected by complex site-formation processes that altered the nature of the primary deposits (Allison 2004). Therefore, it should be made explicit that activities during and after the Boudican fire, such as actions of the fleeing populace, looting by the rebel army, reclamation by returning inhabitants, recycling/scavenging by opportunists, and land clearance in preparation for later construction, would all have depleted or redeposited the artefacts and burnt debris. Frequently, artefacts were deposited on the exposed surface of the destruction debris (as the post-Boudican-fire ground surface) that may have been excavated as part of the same context. Nonetheless, abandoning the attempt would reveal nothing at all and so, while the destruction-debris deposits are included in this analysis, artefacts that clearly post-date AD 60/61 are excluded.

Dating the Revolt

The consular dates derived from Tacitus place the Revolt in AD 61, although historians have often preferred that the Revolt started in AD 60, hence the common dating of ‘AD 60/61’, assuming that Tacitus was either mistaken about when the Revolt started or was referring to two years together under the same consuls (originally proposed by Asbach 1878: 8–16, and most recently by Dudley and Webster 1962: 144). The discrepancy of dates results from these scholars estimating the probable length of time that the events described by Tacitus must have taken from the outbreak of the Revolt to the final battle. Tacitus recorded that the Revolt broke out when people were planting the fields during the year of the consulship of Lucius Caesennius Paetus and Publius Petronius Turpilianus, and that the Battle of Watling Street occurred in the same consulship, which was in AD 61 (Birley 2005: 43–52). Further, he stated that Turpilianus replaced Gaius Suetonius Paulinus as governor after the Revolt, in the year also calculated as AD 61 because Turpilianus was back in Rome in AD 64 and it is assumed that he had a three-year governorship. Given the known course of events both before and after the Revolt, it is possible that the death of Prasutagus and the ensuing events were most likely to have begun in AD 60, the uprising and battles continued through the year into AD 61, when the rebels were finally defeated at the Battle of Watling Street, after which Publius Petronius Turpilianus was sent to Britannia. It is also possible, however, that the Revolt might have taken as little as six weeks, and that it could have begun in early May (the time of planting) of 61, that the Battle of Watling Street took place about mid-June, that news reached Rome quickly and, although Turpilianus was consul in 61, he could have been announced as the new governor of Britannia at the end of the same year (suggested by Carroll 1979). For our purposes, however, it is immaterial whether Londinium was sacked in AD 60 or 61, and the combination of dates (‘AD 60/61’) is used here.

The broadly accepted method of dating strata to the pre-Boudican period based on the presence of

dendrochronological dates of AD 60/61 and earlier, Claudian and early Neronian pottery and coins, and on the absence of late Neronian, Flavian, and later pottery, coins, and dendrochronological dates is the basic dating method employed to identify sites for inclusion here, although it is not without its problems (see e.g. Millett 1987 on dating pre-Flavian Samian). The Roman Ceramic Phase IA (RCP IA) identified for London (the dating structure of non-Samian pottery from a number of type-sites given in Davies et al. 1994, amplifying the information in the earlier DGLA typology based on Marsh and Tyers 1978) describes large assemblages from pre-Boudican deposits on a number of sites, and can be used to suggest a likely date range of about AD 50–60/61 for deposits containing RCP IA forms and fabrics and lacking characteristic later types. Date ranges from publications and other studies of amphorae, Samian, coarse wares, and fine wares have also been collected by MOLA and its predecessors with the date ranges currently summarised in value lists stored on the MOLA Oracle database. Tyers (1996) also offers date ranges for forms and fabrics found in Roman Britain, many of which have early dates before AD 70 and could have been deposited in the pre-Boudican period. An assemblage containing pottery with the commonly accepted early date of AD 70 would indicate that the deposit is unlikely to be pre-Boudican (but see also Millett 1987). Equally, strata containing little datable material but underlying deposits rich in Flavian pottery could date to this earlier period.

The assemblages from ostensibly pre-Boudican sites vary enormously in size. Forms and fabrics in use and deposited in the pre-Boudican period continued to be deposited into the late Neronian and Flavian periods, and an insufficiently large assemblage from a later date may simply lack the characteristic later types of pottery because of its size, and therefore be improperly dated to the earlier period. Similarly, the pottery, coins, and dendrochronological samples are only able to provide *TPQ* dates and cannot prove beyond a doubt that the deposits are not later even if they lack later material.

Using coin evidence to support a Claudian or early Neronian date is also problematic because copies of

Claudian coins were produced up to AD 64 and do not necessarily provide a *TPQ* of Claudian date; the presence of post-AD 64 coins (i.e. Neronian coins from the Lyon mint or Flavian and later coins) and/or assemblages containing forms and fabrics characteristic of RCP IB or the Flavian period or later should indicate post-Boudican deposition.

The limitations of artefact dating – especially the circular method of dating forms and fabrics to the pre-Boudican period where it is assumed *a priori* that the fire on type-sites is, in fact, the Boudican fire – produce a level of uncertainty. In pre-Boudican deposits, some of the ceramics might wrongly date the site as post-Boudican because their use-lives have been truncated by the catastrophe at a time before they would normally enter the archaeological record through loss and disposal (Millett 1987). Caution must be employed, however, when attempting to link a historically attested event with an archaeological phenomenon (Millett 1983), and it is possible that some fire-debris strata have been included that are earlier or up to a decade later than the AD 60/61 fire because of the limitations of artefact dating. There are sites with evidence of fire destruction in the later first century sometimes mistaken for the Boudican fire (e.g. Abacus House and 1–7 Whittington Avenue), primarily dated by coins and later ceramic evidence. Also, there could be buildings that survived the Boudican Revolt without suffering fire damage, only to burn down a few years later; such deposits might be indistinguishable from the slightly earlier fire-debris strata.

APPROACHING THE ARCHAEOLOGY

By drawing together the data from the earliest post-invasion activity up to the Boudican fire, it is possible to consider many of the hypotheses and questions of foundation and early development that have been discussed thus far. Mapping the excavated features and analysing patterns of development can help create a picture of how the town grew over the first decade (or so) of occupation. Open areas and burials can be plotted to estimate the bounds of the settlement, while buildings, waterfront structures,

roads, and external activity areas can demonstrate the extent of the occupied area. The nature of planning and implementation of the urban form provides information with which to consider civic authority and the agency of the town builders. Architectural features, materials, and ground plans can be used to address ethnicity, construction traditions, status, function, and use of space.

Once the structure of the early settlement is understood, activities and identities can be further investigated through artefact assemblages (Chapter 5). The by-products of industries and crafts as well as evidence of soldiers and veterans could fill in a more complete picture to compare to Tacitus' town of merchants. The prevalence of writing, illumination, and the use of imported objects, for example, might signify a more Continental population, while comparisons of the compositions of assemblages between different areas of the settlement can create a nuanced view of how and why some indigenous people were adopting new forms of material culture. Ethnicity may be visible in the material remains of food production, serving, and consumption, while the patterns of coin loss could indicate the extent to which the population was integrated into the monetary economy.

Identifying the sites and strata

Sites with remains likely to pre-date the Boudican Revolt have been selected (Figures 3 and 4 and Tables 4 and 5) through an analysis of the LAARC database, consultation of the gazetteer of sites produced by the Museum of London (Schofield and Maloney 1998), the site gazetteer compiled by Merrifield (1965), the list of sites with Boudican fire debris produced by Millett (1983), by reviewing descriptions of sites published in *Britannia* and *London Archaeologist*, and by evaluating site reports published by LAMAS, the Council for British Archaeology (CBA), MOLAS, SLAEC, and Wessex Archaeology (Figure 4; Table 6). Other sites (identified by Lambert 1921; Dunning 1945; and Millett 1983) where burnt Samian sherds thought to have been deposited within Boudican fire debris were found, are discussed in Chapter 4. Choosing 'pre-Boudican' sites is not unproblematic, and it is

Table 4. *Correlation between site numbers used in the text and site codes/names*

Site no.	Site code (or name/address)		
1	BOL94	47	EST83
2	BUC87	48	ETA89
3	CAO96	49	FEH95
4	CED89	50	FEN83
5	CID90	51	FER97
6	GM136	52	FMO85
7	GM213	53	FNC88
8	GM217	54	FNE01
9	GM34	55	FSE76
10	GM36	56	FST85
11	GM38	57	GM18
12	GM63	58	GM33
13	GPO75	59	GM60
14	IRO80	60	GM69
15	KEW98	61	GM95
16	KNG85	62	GM99
17	MLK76	63	GM100
18	National Safe Deposit Site 1872–3	64	GM101
19	NEG98	65	GM158
20	NGT00	66	GM248
21	OBL97	67	GM297
22	ONE94	68	GST77
23	PNS01	69	ILA79
24	POM79	70	IME83
25	POU05	71	KWS94
26	SLO82	72	LCT84
27	SLY00	73	LFE87
28	St Mary-le-Bow	74	LIB82
29	Warwick Square	75	LIM83
30	WAT78	76	LME01
31	WOW79	77	LYD88
32	3–6 King William Street	78	MFI87
33	8–13 King William Street	79	ORG86
34	14–20 King William Street	80	PDN81
35	9–12 George Yard, Lombard Street	81	PEN79
36	ACE83	82	PUB80
37	AUT01	83	SL75a
38	BIR83	84	SSL84
39	BLE98	85	St Swithin's Lane, King William Street
40	BLH73	86	SUF94
41	BOP82	87	WAO06
42	BRD88	88	WIT83
43	BRL87	89	64BHS74
44	CASS72	90	84BHS74
45	CLE81	91	106BHS73
46	CUL83	92	120BHS89
		93	124BHS77
		94	175BHS76
		95	179BHS89
		96	207BHS72
		97	213BHS77

Table 4. (*cont.*)

Site no.	Site code (or name/address)		
98	15SKS80	BIR83	38
99	2SSBS85	BLE98	39
100	AB78	BLH73	40
101	BGH95	BOL94	1
102	BRG74	BOP82	41
103	Bridge House Sewer Diversion, Montague Close	BRD88	42
104	BSE94	BRG74	102
105	BTBHS91	Bridge House Sewer Diversion, Montague Close	103
106	BTJ93	BRL87	43
107	BWMC74	BSE94	104
108	CO87	BTBHS91	105
109	CO89	BTJ93	106
110	DHS75	BUC87	2
111	GM439	BWMC74	107
112	HC74	CAO96	3
113	JSS92	CASS72	44
114	Montague Close	CED89	4
115	PRK90	CID90	5
116	STU92	CLE81	45
117	TW84	CO87	108
118	WP83a-c	CO89	109
		CUL83	46
		DHS75	110
		EST83	47
		ETA89	48
		FEH95	49
		FEN83	50
		FER97	51
		FMO85	52
		FNC88	53
		FNE01	54
		FSE76	55
		FST85	56
		GM18	57
		GM33	58
		GM34	9
		GM36	10
		GM38	11
		GM60	59
		GM63	12
		GM69	60
		GM95	61
		GM99	62
		GM100	63
		GM101	64
		GM136	6
		GM158	65
		GM213	7
		GM217	8
		GM248	66
		GM297	67

Table 5. Correlation between site codes/names and the site numbers used in the text

Site code (or name/address)	Site no.		
64BHS74	89		
84BHS74	90		
106BHS73	91		
120BHS89	92		
124BHS77	93		
175BHS76	94		
179BHS89	95		
207BHS72	96		
213BHS77	97		
15SKS80	98		
2SSBS85	99		
3-6 King William Street	32		
8-13 King William Street	33		
14-20 King William Street	34		
9-12 George Yard, Lombard Street	35		
AB78	100		
ACE83	36		
AUT01	37		
BGH95	101		

Table 5. (*cont.*)

Site code (or name/address)	Site no.
GM439	111
GPO75	13
GST77	68
HC74	112
ILA79	69
IME83	70
IRO80	14
JSS92	113
KEW98	15
KNG85	16
KWS94	71
LCT84	72
LFE87	73
LIB82	74
LIM83	75
LME01	76
LYD88	77
MFI87	78
MLK76	17
Montague Close	114
National Safe Deposit Site 1872–3	18
NEG98	19
NGT00	20
OBL97	21
ONE94	22
ORG86	79
PDN81	80
PEN79	81
PNS01	23
POM79	24
POU05	25
PRK90	115
PUB80	82
SL75a	83
SLO82	26
SLY00	27
SSL84	84
St Mary-le-Bow	28
St Swithin's Lane, King William Street	85
STU92	116
SUF94	86
TW84	117
WAO06	87
Warwick Square	29
WAT78	30
WIT83	88
WOW79	31
WP83a–c	118

Table 6. *Number of sites with certain data types present within Groups 0–3 contexts*

Data type	Number of sites
Context index	62
Pottery	52
Fully quantified by sherds, weights, and EVEs	2
Fully quantified by sherds and weights only	6
Fully quantified by weights and EVEs only	5
Fully quantified by sherds only	10
Fully quantified by sherds and also partially quantified by weights and EVEs	6
Partially quantified by sherds, weights, and EVEs	1
Partially quantified by weights and EVEs only	2
Spot dated only	14
Unquantified here	6
Glass	34
Registered finds	48
Coins	22
Animal bone (unquantified)	8
Building material	32

entirely possible that a few pre-Boudican sites have been left out, especially when detailed publications were not available (or escaped the author's notice). Sites lacking the characteristic well-dated fire-debris horizon present a difficulty; nonetheless, sixty-two such sites are included which have deposits that contain artefacts dated to the Claudian–early Neronian period or where strata can be equated to nearby sites with Boudican fire debris.

It could be argued that the sites and strata included here which are less certainly pre-Boudican are those which contain primarily open-area features or which lack the fire-debris horizon, early roads, and/or structures (e.g. Sites 3, 14, 15, 17, 21, 26, 27, 29, 41, 48, 72, 77, 87, 100, 108, 109, 115). Bearing in mind the limitations of dating assemblages to such an exact time frame, the deposits included here have been chosen on the best available evidence. The balance of probability is that most of the fire-debris strata dated to around AD 50–70 do represent the Boudican fire and that the difficulties presented by dating other deposits will have a marginal effect on the overall study.

Few summaries and reports contain context-level information, and so the LAARC is an invaluable resource.

The more useful published site reports generally provide structural phasing and descriptions, phased plans, thematic essays, and specialist appendices. The stratigraphy is usually grouped into periods and phases of land-use areas (buildings, structures, roads, and open-area deposits). In the more recent MOLAS publications (e.g. Drummond-Murray et al. 2002 and Hill and Rowsome 2011a), certain (but not all) artefacts are discussed in relation to features for dating and interpretative evaluations. The thematic essays discuss interpretations of social structure, urban development, consumption, and other topics related to the specific site(s) (e.g. Dunwoodie 2004). The specialist appendices offer analyses and interpretations of ceramics, coins, registered finds, wood, botanical remains, faunal remains, and so forth, with tables of statistics by land use or by period/phase. These specialist reports do not usually offer quantification or analysis of meaningful contextual groups, such as occupation-debris assemblages, or catalogues of all the finds.

Because land-use area is the smallest unit discussed in the vast majority of these publications and contexts are not listed, it would be impossible to link artefacts from finds catalogues to the structural analysis included in the reports. The point is rather moot, however, because the publications do not include finds catalogues either, and one must visit the archive or contact the excavators in order to obtain these data. The scale, quality of coverage, and quality of resolution of data possible to produce using only published reports would be low. The intention of these publications is not to establish a permanent record of the excavation in order to enable researchers to study the sites, but rather to analyse and present the archaeology more generally.

Although the site reports and data tables used often assign land-use area designations (e.g. 'Building 1', 'Open Area 1') to groups of contexts, the designations conflate distinctly different processes in the formation of the site. Construction, use, and destruction/disuse contexts are frequently combined into single land uses and Boudican fire-debris deposits are sometimes included in post-Boudican open areas with other, later, external features and deposits. It is important to separate contexts from the

same land-use areas in order to scrutinise the early years in the development of the town and to analyse contextual assemblages related to uses of specific spaces. In the case of buildings, if one were simply to select the unique land-use area, and thereby all contexts associated, to produce an artefact assemblage, one would be combining artefacts deposited at different times during the life-cycle of the structure, by various people, originating from more than one area, originally deposited in association with activities under diverse conditions unrelated to the use of the building. Artefacts deriving from construction contexts especially are likely to be in secondary or tertiary deposition, having arrived within sediment quarried and transported for the purpose of construction.

There are equivalent issues to consider in the site-formation processes of external areas. First, defining the relationships of external deposits to the life-cycles of nearby structures is problematic where no direct stratigraphic relationship can be determined and where there is no Boudican fire debris covering yard deposits. Secondly, formation processes must be considered in defining the construction, use, and disuse of external features – a quarry pit, once dug, is an empty, intrusive feature that has ceased its function as a quarry pit. It may be left open, filled with trash, or intentionally filled with sediment during land-levelling activities. In any scenario, its fill (whether we call this 'secondary use' or 'disuse') is associated with a different behaviour than its construction.

Patterns of development

Perusing site reports, one finds a general development pattern in the pre-Boudican phases: road building and associated land clearance often preceded the first construction of buildings, which, in turn, were frequently dismantled and replaced by later structures standing at the time of the Boudican fire. Linking these observed patterns from several sites is a strong and convincing method of undertaking the presentation and analysis of pre-Boudican Londinium, although similar phases in the patterns of development of different sites may not have been precisely contemporaneous. As the period in

question spans less than fourteen years, quibbling about which exact buildings were standing at the same time is somewhat pedantic. Presenting the archaeology in three groups, structured by the observed patterns in relative stratigraphic chronologies within this short time frame, is perfectly reasonable, but must not be taken as historical reality.

Such a system is necessary because there is no overall phasing system that has been applied to every site excavated in London; authors assign periods, phases, and land uses specific to a given site. Unless one wished to discuss the pre-Boudican period as a whole and not examine development, growth, and change over time up to AD 61, one must have some way of organising and relating the phases of the different sites. Therefore, it was necessary to create a single stratigraphic grouping structure to analyse and map the pre-Boudican features of different sites. A system of codes was developed, and these stratigraphic groupings codes have been applied to around 14,607³ pre-Boudican contexts. This strata-organising framework allows for the conception of all excavations from the City and Southwark as a single archaeological site with many trenches. The codes (Table 5) assign three pieces of information to each context: first, the relative chronological place of the deposit within the overall development of the site; secondly, the relationship between that deposit and structures (i.e. internal vs. external, etc.); and thirdly, the basic interpretation of the deposit itself (e.g. hearth, well, occupation debris).

This stratigraphic organisation is firmly rooted in an analysis of the site-formation processes, although it represents, in itself, a working hypothesis. This survey identified a common sequence of natural and pre-Roman

Table 7. *Detail of the stratigraphic grouping codes*

Group 0	Natural and pre-Roman features
0.1.1	Natural ditch, gully, stream, etc.
0.1.2	Pit
0.1.3	Hearth
0.1.4	Occupation debris
0.1.5	Structures
0.1.6	Ditch
0.1.7	Natural marsh deposit
Group 1	Roman features in direct contact with the natural clay or gravel
1.0.0	Unassigned deposit type
Group 1.1	Cuts and deposits not part of road construction
1.1.0	Unspecified deposit type
1.1.1	External deposit not associated with road make-up
1.1.2	Unspecified pits or tree-hole pits
1.1.3	Unspecified pits or tree-hole pits sealed by the primary road metalling
1.1.4	Rubbish pits
1.1.5	Quarry pits
1.1.6	Postholes, structural cuts, and timbers
1.1.7	Small ditches/drains
1.1.8	Small ditches/drains sealed by the primary road metalling
1.1.9	Very large ditches
1.1.10	Very large ditches with V-shaped and ankle-breaker profiles
Group 1.2	Cuts and deposits part of earliest road construction
1.2.0	Unspecified deposit type
1.2.1	External deposit stratigraphically beneath the road, make-ups for road
1.2.2	Primary metallised surface
1.2.3	Roadside drains, structural timbers of drains and their postholes, and other structural cuts
1.2.4	Timber pilings and revetments
Group 2	Features stratigraphically beneath Group 3 features
Group 2.1	External deposits associated with the construction of early structures (make-up and levelling deposits)
2.1.0	Unspecified deposit type
2.1.1	Make-ups and dumping specifically in preparation for building Group 2 structures
Group 2.2	Internal structural elements of Group 2 buildings
2.2.0	Unspecified deposit type
2.2.1	Floors
2.2.2	Structural elements, walls, sills, postholes, foundation cuts
2.2.3	Drains
2.2.4	Burial within/beneath a structure (animal, foundation deposit?)

³ This figure does not include the 1,172 contexts that, although included by the site excavators in the same land-use designation areas as pre-Boudican contexts or phased as possibly pre-Boudican, have been removed because they represent later robbing or areas that were in use for a significant time after about AD 60/61. Because of these omissions, 3,129 records of finds data, which are linked to these contexts, are also omitted. A thorough investigation of the earliest material may make the inclusion of some of these data possible.

Table 7. (*cont.*)

		Group 3.2	Internal structural elements
Group 2.3	External deposits	3.2.0	Unspecified deposit type
2.3.0	Unspecified deposit type	3.2.1	Floors
2.3.1	Dumping, rubbish dumping, external occupation, surfaces, and make-ups NOT associated with a known structure	3.2.2	Structural elements, walls, sills, postholes, foundation cuts
2.3.2	Surfaces and deposits definitely associated with Group 2.2 structures (yards)	Group 3.3	External deposits
2.3.3	Hearths, hearth structures, and debris	3.3.0	Unspecified deposit type
2.3.4	Wells	3.3.1	Surfaces and deposits
2.3.5	Quarry pits and fills	3.3.2	Hearths and debris
2.3.6	Pits, non-structural cuts, tree-hole pits	3.3.3	Wells
2.3.7	Structural cuts, postholes, timbers	3.3.4	Pits, non-structural cuts, tree-hole pits
2.3.8	Ditches and drains	3.3.5	Structural cuts, postholes, timbers
2.3.9	Burial	3.3.6	Ditches and drains
Group 2.4	External deposits associated with roads and waterfront	Group 3.4	Internal occupation/use deposits
2.4.0	Road context, unspecified deposit type	3.4.0	Unspecified deposit type
2.4.1	Road make-up	3.4.1	Occupation debris inside Group 3.2 structures
2.4.2	Road surface	3.4.2	Hearths and debris inside Group 3.2 structures
2.4.3	Deposits on roads that immediately post-date the primary metallurgy	Groups 3.5 through 3.8	Deposits post-dating the disuse of Group 2 or Group 3.2 structures or deposits and extant at the time of the Boudican fire
2.4.4	Roadside ditches/drains	Group 3.5	External deposits associated with the construction of Group 3.6 structures (make-up and levelling deposits)
2.4.5	Foreshore timber revetment/bank	3.5.0	Unspecified deposit type
2.4.6	Foreshore timber jetty or posts	3.5.1	Make-up and dumping specifically in preparation for Group 3.6 structures
2.4.7	Foreshore artificial gravel/chalk surface	3.5.2	Destruction debris dumping, redeposited, associated with some earlier destruction
Group 2.5	Internal occupation/use deposits	Group 3.6	Internal structural elements
2.5.0	Unspecified deposit type	3.6.0	Unused or unspecified context
2.5.1	Occupation debris	3.6.1	Floors
2.5.2	Hearths and debris	3.6.2	Structural elements, walls, sills, postholes, foundation cuts
2.5.3	Redeposited fire debris when a 2.2 structure burns down (or in open areas associated with Group 2 structures)	3.6.3	Drains
2.5.4	<i>In situ</i> fire debris when a 2.2 structure burns down (or in open areas associated with Group 2 structures)	3.6.4	Internal fittings, such as shelving
Group 3	Features stratigraphically above Group 1 and Group 2 features and those contexts dating to AD 60/61 fire	Group 3.7	External deposits
Groups 3.1 through 3.4	Deposits post-dating the disuse of Group 2 structures, and probably contemporary in construction with some structures extant at the time of the Boudican fire, but short-lived and destroyed before the fire and/or replaced by the time of the fire	3.7.0	Unused or unspecified context
Group 3.1	External deposits associated with the construction of Group 3.2 structures (make-up and levelling deposits)	3.7.1	Surfaces and deposits
3.1.0	Unspecified deposit type	3.7.2	Hearths and cooking pits and their debris
3.1.1	Make-ups and dumping specifically in preparation for Group 3.2 structures	3.7.3	Wells
		3.7.4	Pits, non-structural cuts, tree-hole pits
		3.7.5	Quarry pits
		3.7.6	Structural cuts, postholes, timbers
		3.7.7	Revetments
		3.7.8	Banks
		3.7.9	Ditches and drains
		3.7.10	Burials
		Group 3.8	External deposits associated with roads and waterfront
		3.8.0	Unused or unspecified context

Table 7. (cont.)

3.8.1	Road make-up
3.8.2	Road surface
3.8.3	Deposits on roads
3.8.4	Roadside ditches/drains
3.8.5	Structural elements associated with roads, postholes, structural timbers, posts for raised boardwalks, etc.
3.8.6	Foreshore timber revetment/bank
3.8.7	Foreshore timber jetty or posts
3.8.8	Boudican fire debris on roads, redeposited
3.8.9	Boudican fire debris on roads, <i>in situ</i>
3.8.10	Boudican fire debris on roads supposedly associated with hiatus after fire
Group 3.9	Internal occupation/use deposits
3.9.0	Unspecified deposit type
3.9.1	Occupation debris (before remodelling)
3.9.2	Hearths and debris (before remodelling)
3.9.3	Occupation debris
3.9.4	Hearths and debris
3.9.5	Boudican fire debris, redeposited
3.9.6	Boudican fire debris, <i>in situ</i>
Group 4	Contexts assigned the same land-use designation as other pre-Boudican open areas, but representative of later activities (i.e. intrusive features or deposition that cannot be shown to pre-date the Boudican fire)
4.1.0	Unspecified deposit type
4.1.1	Robbing cuts
4.1.2	Non-fire-debris deposits in land-use areas containing 3.9 fire debris
4.1.3	Intrusive features in land-use areas containing 3.9 fire debris
4.1.4	Context associated with later periods of roads, open areas, or buildings
4.1.5	External areas associated with 3.6 structures but with assemblages that show that the area continued in use for a long time after; also no fire-debris level
4.1.6	External areas not associated with 3.6 structures but with assemblages that show that the area might have been pre-Boudican for a while and continued in use for a long time after; also no fire-debris level
4.1.7	Road deposits associated with 3.6 structures but with assemblages that show that the area might have been pre-Boudican for a while and continued in use for a long time after; also no fire-debris level

features (Group 0) stratigraphically followed by early Roman cuts and deposits on the natural clay and gravel usually associated with the early road construction (Group 1), sometimes followed by the filling of these early cut features, other deposition, roads, waterfront structures, and the construction of the first buildings (Group 2), and later roads, waterfront structures, deposits, and buildings, including those extant at the time of the Boudican fire (Group 3). A fifth group (Group 4) includes those contexts that post-date the AD 60/61 fire, although they were grouped by site-report authors into the same land uses as pre-Boudican features (i.e. later intrusive features). By developing this interpretative stratigraphic arrangement, structures and artefacts can be considered in meaningful groups within a chronological framework. These grouping codes are used in AutoCAD to produce maps (Chapters 2–4) and in Microsoft Access to discuss the contexts of artefact assemblages (Chapter 5).

The stratigraphic organisation presented in this project allows a consideration of the activities across the settlement in conjunction with one another and a broad analysis of the meaning of these activities, and particularly about the meanings of variations in artefact patterning. This organisation does not create periods within a phasing structure, strictly speaking; the groups are formed by physical upper and lower stratigraphic bounds. The only strata that can be directly equated across the sites are the natural alluvial clay, so-called ‘brickearth’, and the extensive fire-debris horizon dating to the fire of AD 60/61. The internal organisation consists of similarities in their archaeological sequences, which may have taken place at different times in different places, and not of actual stratigraphic relationships, because the excavated areas are not contiguous. Some sites have only Group 3 features, a characteristic that emphasises the possibility that features within these groups may not be contemporaneous. The maximum fourteen-year time span, however, is so narrow that the groups are likely to fall within overlapping time periods in different areas of the settlement regardless.

THE FIRST FEATURES

INTRODUCTION

Evidence from the entire pre-Boudican period is often used to support hypotheses regarding the foundation of Londinium because the period represents the first decade or so of settlement. Yet the conflation of distinct processes and patterns of activities related, broadly, first to land clearance and road building, later to early settlement, and finally to rapid growth, obfuscates many of these discussions. In order to explore the process of foundation profitably, the broad patterns of development must be used to analyse the earliest features from all sites. The Group 1 features (see [pages 30–3](#)), because they are the earliest intrusive and depositional contexts and represent a distinct set of land uses, provide the evidence to elucidate what activities occurred before any others in the process of establishing a settlement at Londinium (see also the discussion of associated artefact assemblages in [Chapter 5](#)).

An appraisal of these features from the study sites shows that the earliest activities were clearing and draining the land, and quarrying material to build the two main roads. On all sites where the main roads and occupied roadside areas have both been excavated (Sites 5, 20, 22, 51, 54, 99, 100, and 101) the roads and associated ditches, pits, and deposition are always the earliest features. Therefore, an interpretative decision has been made to include in this chapter other early quarry pits and ditches from roadside sites where the roads have not been excavated, but no features or structures on sites that have only one phase of pre-Boudican development (see [Chapter 5](#)). There are sixty-three sites included in the discussion in this chapter ([Figure 5](#)); the fifty-five excluded sites may well have exhibited evidence of activities such as early quarrying and land clearance; these

sites primarily include those for which stratigraphic reports or summaries were not available (see [Figure 4](#)), or where limited excavation (because of time or financial constraints), watching-brief conditions, and site-formation processes have affected preservation. Other sites have been excluded that some would argue ought to be included as they have features interpreted by others as very early (e.g. ditches at Sites 48, 87, 115 (see [page 37](#); [Perring 2011](#)) and the early structure at Site 50 south-east of the Cornhill crossroads (see [pages 44](#) and [56](#); Williams forthcoming)). Their exclusion is discussed in the appropriate sections below. It must be borne in mind that features selected for discussion in this chapter are not necessarily contemporaneous, but, rather, that they represent an observed early part of the broad pattern of development across several sites.

THE PRE-ROMAN LANDSCAPE

There was a general lack of trees in the vicinity of Londinium in the LPRIA, in comparison to the LBA, which may be part of the reason that the site was chosen ([Sidell 2008: 68](#)). The area spanned the River Thames at a point where it was still tidal, but near to the limit of tidal effects ([Milne et al. 1983](#)) and the river (or estuary) at the site was much wider than it is today, more than 350 metres in places. The northern shore comprised two low hills cresting at about 12 metres OD – Ludgate Hill on the west and Cornhill on the east. These hills were formed by gravels overlain by a thick cap of alluvial clay (the so-called brickearth) and the gravels were exposed along the foreshore, which could be quarried for road-building material. The Fleet River defined the extreme western boundary of settlement and the Lorteburn Stream

(between Cornhill and Tower Hill) the eastern; the hills themselves were divided by the Walbrook Stream. South of the Thames, the future settlement would be built on two sandy eyots, divided by stream channels, and onto the mainland. At the time when people arrived to clear and drain the land, quarry material, and build the roads they would have found some open meadowland, but primarily a wood comprising oak, hazel, beech, and alder on the two low hills on the northern shore. The Thames foreshore was a wet sedge marshland above exposed gravel deposits where alder, oak, and hazel trees could also be found. The Walbrook Stream was clear, but not fast-flowing, and had marshy banks where they would have found alder, rush, sedges, bracken, rough grassland, as well as trees – mostly lime, oak, and hazel. The sandy eyots south of the Thames were covered with low-lying marshland and grassland, which would have made building a dry, stable road surface difficult – the timber-corduroy raft (see [page 42](#)) constructed to solve this problem could have been made from trees felled during the land clearance. There were oak-dominated woodlands to the south on the mainland where alder carr could also be found (Sidell 2008). There is no direct evidence of the earliest bridge, and so we cannot know where the timber to construct it was sourced.

DETAILED DISCUSSION OF FEATURES

The features discussed in detail in this chapter consist of quarry pits, large ditches – often thought to relate to defensive or planning activity – land clearance, roads, limited deposition, and ephemeral structures at sixty-one sites. Each of these features relates to the main project of constructing the roads to connect Colchester to the ports in Kent and to Calleva and the west. Although symmetry in the road/bridge configuration on Cornhill and a substantial timber cross-drain under the road on Ludgate Hill suggest the possibility of anticipated settlement, the roadsides were left with gaping pits and ditches, which would have to be filled and levelled before construction could begin.

Quarry pits

Pits are usually interpreted in publications and archive reports as ‘quarry pits’ ([Figure 6](#)) when they are large (c. 1.0 + m in diameter) or deep (c. 0.50 + m deep) and when they intrude into natural gravel strata, but the designation is relatively subjective. People dug such pits to extract clay, gravel, and sand for the construction of the roads and, later, for earthen banks, land-levelling make-ups, and for the slabs, floors, sills, and walls of buildings.

There are around 180 Group 1 quarry pits at 30 sites. This brickearth, sand, and gravel quarrying was probably undertaken in association with road construction, as is evident on sites where both early roads and quarry pits have both been excavated. Other Group 1 pits of unknown or unspecified type (c. 60 pits) that were not interpreted as quarry pits in reports or publications exist at ten sites (seven of which have pits interpreted as quarry pits already); those pits are included in ‘Land clearance and preparation’, below. The large ditches, often parallel to or associated with the roads ([page 38](#)) could also have functioned partly to provide quarried material. The Group 1 quarry pits are rarely significantly weathered or eroded and, therefore, appear to have been filled relatively rapidly – most often by deposits associated with significant changes in the land use, usually Group 2 land levelling or rubbish dumping.

While quarry-pitting preceded the construction of pre-Boudican buildings on at least twenty sites, quarry pits physically underlie buildings at Cornhill Sites 46, 49, 78, 82, and 84, Ludgate Hill Sites 1, 13, 19, 20, and 22, and at Southwark Site 101. Other examples probably exist among the seven other sites where Group 1 quarry pits, which could not be illustrated, pre-date later buildings (Sites 3, 25, 30, 46, 53, 78, and 88), but the lack of available drawings of exact locations of quarry pits or explicit descriptions of relationships prevents any certainty. The quarry pits’ locations seem to indicate that those who dug them were not planning immediate construction along the roads; they dug them close to the roads – indeed, in the exact locations where people would eventually want to build shops, workshops, and houses. A huge amount of work went into filling these pits and

Table 8. *Large Group 1 ditches*

Site no.	Zone	Depth	Width	Special profile?	Road	Relationship to road	Finds of note	Fills Group
5	Ludgate Hill	0.90 m	1.85 m	V-shaped with ankle-breaker profile	Ludgate Hill Road 1	Parallel to and c. 8.5 m south	None (but see associated rubbish pits for sword-grips)	2
15	Ludgate Hill	–	–	Not specified	Ludgate Hill Road 1	Parallel to and c. 6.0 m north	None	2
19	Ludgate Hill	–	c. 2.5 m	Not specified	Ludgate Hill Road 1	Parallel to and c. 6.0 m south	Two bones from the lower hind leg of a very young foal	2
20 (1)	Ludgate Hill	–	c. 2.0 m	Steeply sloping sides and a flat base	Ludgate Hill Road 1	Parallel to and c. 6.0 m south	None	2
20 (2)	Ludgate Hill	–	1.8 m	Not specified	Ludgate Hill Road 1	Parallel to and c. 3.0 m south of first ditch	None (but see adjacent smaller ditch for inhumation burials)	2
22 (1)	Ludgate Hill	0.45 m	0.70 m	Steep-sided, flat-bottomed	Ludgate Hill Road 1?	c. 14.0–20.0 m north, 30° angle	None	2
22 (2)	Ludgate Hill	0.45 m	0.70 m	Steep-sided, flat-bottomed	Ludgate Hill Road 1?	c. 14.0–20.0 m north, 30° angle	None	2
44	Cornhill	1.32 m	1.82–2.4 m	V-shaped	Cornhill Road 2	North of c. 2–10 m? Probably angled more east–west	Sword-grip of a legionary <i>gladius</i>	2
54 (1)	Cornhill	–	c. 1–2 m	Not specified	Cornhill Road 2	Parallel to and c. 4 m south-east	Double inhumation burial	2
54 (2)	Cornhill	–	c. 1–2 m	Not specified	Cornhill Road 2	Parallel to and c. 8 m south-east	None	2
54 (3)	Cornhill	–	c. 1–2 m	Not specified	Cornhill Road 2	Perpendicular to road and to other ditches c. 8 m south-east	None	2
56	Cornhill	0.80 m	1.70 m	Irregular profile, flat base in part	Cornhill Road 2	North of c. 2–10 m? Parallel?	Articulated horse leg	2
71	Cornhill waterfront	0.90 m	2.8 m	Ankle-breaker profile in part	Cornhill Road 3	Perpendicular to and west c. 10 m	None	2
73	Cornhill	–	c. 1.70 m	V-shaped	Cornhill Road 2	North of road c. 2–10 m? Parallel?	None	2
101 (1 and 2)	Northern eyot	–	c. 2.0 m	–	Southwark Road 1	Parallel to and east of c. 7.0 m	None	2

levelling the land for later construction (see [Chapters 3 and 4](#)), which would have been unnecessary if some foresight had gone into the location of pits and ditches.

Large ditches

There are a number of large ditches ([Figure 7](#) and [Table 8](#)) from the early pre-Boudican period. The selection process for ditches in this group ([Table 6](#)) is subjective, as it relies on the ditch being described as ‘large’ (c. 1.0 + m wide), ‘substantial’, for ‘possible road laying-out’, or for ‘possible defence’ by the report author, or as appearing large in plans. Other ditches are considered below with the evidence for land clearance and preparation. There are fifteen stretches of large Group 1 ditches, some of which are likely to be parts of the same ditch (e.g. the ditches at Sites 56 and 73), while others form interconnecting ditch systems (as at Site 54). Like the quarry pits, many of these ditches physically underlie later buildings; filling them to level the land for later construction was a major undertaking.

The earliest V-shaped ditches and those with ankle-breaker profiles varied from 1.0 to 2.8 metres wide. Their depths were not always recorded, but when they were, they varied from 0.90 to 1.32 metres deep. These are much smaller than the V-shaped ditches associated with the contemporary fortress at Camulodunum, which were 5.0 metres wide and 2.5 metres deep (Crummey 1988: 29). The other large Group 1 ditches (those with other profiles, many of which were similar, steep-sided or stepped) varied from 0.70 to 2.5 metres wide and 0.25 to 0.9 metres deep.

Two other sites that have very large V-shaped ditches that directly underlie, and, therefore, are almost certainly somehow related to, later Flavian roads (Sites 48 and 87) (see [pages 68–70](#), 93–4, below) have been discussed as very early features of the defences of a supposed Claudian fort (Perring 2011). Without overlying pre-Boudican stratigraphy indicating their earlier placement within the period, however, it is impossible to date them precisely, and certainly impossible to relate them to an early fort (Wallace 2013). Although one contained LIA pottery, they are datable only as ‘pre-Flavian’ and likely to be pre-Boudican; their construction and use are not associated

with pre-Boudican roads or structures (Maloney and Holroyd 2007; Sankey 2002), so they are discussed as late in the sequence as possible, in Group 3. Another Group 3 ditch containing ‘Romanised’ LIA pottery that had steeply sloping sides and a so-called ankle-breaker profile¹ found at Site 115 has also been suggested as part of a military enclosure, south of the Thames (Mattingly 2006; Perring 2011). Its position indicates that it was perhaps constructed to drain into an inlet in the Bankside Channel and was most likely associated with the construction of the later pre-Boudican road Southwark Road 2; the report author interpreted it as a boundary marker, partly because it was replaced by a post-Boudican fence after being filled (Cowan 2003: 13–15 – see also [page 68](#)). Aside from the chronological (stratigraphic) evidence that prevents these ditches from being placed in the early pre-Boudican period, their function as defensive elements is also open to debate (as noted by Cowan in regards to the Site 115 ditch). Six other V-shaped ditches are known in the pre-Boudican period, primarily associated with road construction and drainage, and one is associated with the construction of a Group 3 building at Site 79. Similarly, double ditches are not unknown in the pre-Boudican period, and at least four other examples are known: forming the boundary of a cremation cemetery at Site 73; pre-dating a track and later a road at Site 22; constructed along the southern side of Cornhill Road 2 at Site 54; and along the southern side of Ludgate Hill Road 1 at Site 20. Taken within the broader context of all the pre-Boudican large ditches, the significance of the large ditches at Sites 48, 87, and 115 as evidence for a Claudian fort diminishes.

Ditches perpendicular to roads

Two of the large ditches are roughly perpendicular to a nearby road. One of these – the ditch that had an ankle-breaker profile (in part) was perpendicular to Cornhill

¹ The so-called ankle-breaker profile of some ditches is probably not a significant part of their original function and is more likely to be related to the original difficulty of clearing the bottom of a V-shaped ditch using a spade, although they may simply be artefacts of modern excavation (M. Millett, pers. comm.).

Road 3 at Site 71 – probably did not intersect with the nearby road, as it appears to run west–east for the greatest distance and then to divert away to the south and the Thames before reaching the road. One ditch at Site 54 intersected with another ditch parallel to Cornhill Road 2 and sloped down from the parallel ditch to the south-east in the direction of the Lorteburn Stream. These ditches seem to be directly related to draining away from nearby roads into known streams.

Ditches parallel to roads

There are five stretches of ditch parallel to Ludgate Hill Road 1, 6.0–8.5 metres away, four south of the road and one to its north. Because the large ditches associated with Ludgate Hill Road 1 are only present where the line of the road intersects a stream channel, at the western end of the settlement where tributary streams flowed down Ludgate Hill into the Fleet, and at the eastern side of the Hill where the tributary streams flowed down to the Walbrook (see [Figure 7](#)), it is likely that these ditches served to drain water into those streams to prepare for road construction. One is V-shaped with an ankle-breaker profile, one has steeply sloping sides and a flat base, and the other three have unknown or unspecified profiles. Two ditches, which were probably connected, ran parallel to Southwark Road 1 on the northern eyot and probably drained into the Southwark Street Channel. Of the five ditches that were approximately parallel to Cornhill Road 2, two have V-shaped profiles and one has an irregular profile with a flat base in part. These ditches, like those associated with Ludgate Hill Road 1, are located in an area where a stream channel is known to intersect the line of the early road; in fact, one (at Site 54) is directly connected to a perpendicular, downhill ditch that appears to be aiming in the direction of the Lorteburn Stream.

Other ditches

Of the ditches that bear no significant relationship to the earliest roads, there are two ditches at Site 22 parallel to each other, about 5.20 metres apart, but at a 30-degree angle north of the main road. These ditches seem to

foreshadow the placement of a later road (Ludgate Hill Road 6 – see [page 74](#)), which was built after they were filled, to the north overlying the northern of the two ditches; this pattern of road development can also be seen at Sites 45, 48, and 87 in later phases.

These large ditches appear to have been filled in relatively quickly. Large ditches included in later chapters either were constructed at the same time as these Group 1 ditches and simply remained open longer and filled in slowly during the pre-Boudican (sometimes, more imprecisely, the pre-Flavian) period or they were, in fact, constructed later in the pre-Boudican period. The ditches at Sites 41 and 45 (see [page 51](#)), for example, were overlain by pre-Boudican structures, but are not discussed here because it is impossible to relate them to the earliest activity: road construction.

The association of a V-shaped profile, ankle-breaker profile, or similar steeply sided profiles with the ditches parallel to Ludgate Hill Road 1 and Cornhill Road 2, likely to have been used to lay out the line of the road and for quarrying and drainage, suggests that V-shaped ditches and those with ankle-breaker-profile bases cannot be associated with defence purposes without other associated evidence present (e.g. ramparts). Examining these early ditches as a group and mapping them against the known Roman topography shows significant relationships between the large ditches, roads, and streams. It is very likely that these ditches were constructed for the purpose of draining the land in areas where streams crossed the line of the roads (see [Wallace 2013](#)).

Land clearance and preparation

Deturfing the land, removing trees, redirecting existing water courses, and providing drainage for the new roads would have been a major undertaking necessary to complete before the construction of the roads could begin. Cut features at twenty-five sites ([Figure 8](#)) represent early land clearance and preparation in the form of drainage, tree removal, small-scale pitting, and marking-out of land with stakes. At several sites the natural topsoil was removed during the land-clearance activities. Many of

Table 9. *Evidence for and characteristics of Group 1 roads*

Road	Site no.	Zone	Width	Bridge etc.	Make-up 1	Make-up 2	Make-up 3	Metalling 1	Metalling 2
Cornhill Road 1	49	Cornhill			None, on natural brickearth			Gravel	
Cornhill Road 1	51	Cornhill	c. 4.0 m		None, on natural brickearth			Gravel	
Cornhill Road 1	62	Cornhill	More than 4.6 m wide		None, on natural brickearth			Gravel	
Cornhill Road 1	67	Cornhill						Gravel	
Cornhill Road 1	68	Cornhill						Gravel	
Cornhill Road 2	54	Cornhill	At least 10.0 m					Gravel	
Cornhill Road 3	66	Cornhill						Gravel	
Southwark Road 1	89	Southern eyot			Two layers of timber	Clay		Sand	Hard-packed gravel
Southwark Road 1	90	Southern eyot	c. 7.0 m		Timber raft, one layer in part, two layers elsewhere	Clay		Sand	Gravel
Southwark Road 1	91	Southern eyot	c. 7.5 m		Oak timber corduroy raft	Clay	Sand	Hard-rammed gravel	
Southwark Road 1	92	Southern eyot	10.0 m		Timber corduroy raft held in place by vertical stakes	Clay		Hard-rammed gravel	
Southwark Road 1	93	Southern eyot			Earth covered by sand	Timbers	Clay	Sand and charcoal	Sandy gravel
Southwark Road 1	96	Southern eyot		Log bridge and pegged supports (revetment)	Alder timber-corduroy raft set in sand (in north only); where it crossed the channel, the road was set on two layers of logs set in clay	Sand retained by a pegged timber	Logs packed with sandy clay	Sandy gravel	Hard-rammed gravel
Southwark Road 1	97	Between southern eyot and mainland	8.0 m	Log bridge	Timber-corduroy raft over partly silted Borough channel; logs	Sand and clay bank		Gravel	Later sand and timbers and gravel
Southwark Road 1	99	Northern eyot			None	None		Gravel	
Southwark Road 1	100	Mainland south of Thames	12.0 m	Timbers across a channel	Two layers of timber (mostly alder, some willow and oak) at 90° angles to each other, built across a small channel	Agger of silty sand		Gravel	
Southwark Road 1	101	Northern eyot						Gravel	
Southwark Road 1	102	Southern eyot			None in part; and two layers of timbers in the northern area	None		Gravel	None

Table 9. (cont.)

Road	Site no.	Zone	Width	Bridge etc.	Make-up 1	Make-up 2	Make-up 3	Metalling 1	Metalling 2
Southwark Road 1	103	Northern eyot			None	None		Gravel	
Southwark Road 1	105	Northern and southern eyots		Timber revetment to channel (S1)	Horizontal alder logs; also one upright post	Clay			
Southwark Road 1	110	Northern eyot			None (on natural clay)	None		Sand	Gravel
Ludgate Hill Road 1	4	Ludgate Hill						Gravel	
Ludgate Hill Road 1	5	Ludgate Hill	c. 8.70 m		0.35 m brickearth template deposited on natural			Gravel	
Ludgate Hill Road 1	6	Ludgate Hill							
Ludgate Hill Road 1	9	Ludgate Hill	c. 8.08 m		3–6 in. yellow clay on natural clay			Gravel	
Ludgate Hill Road 1	10	Ludgate Hill						Gravel	
Ludgate Hill Road 1	11	Ludgate Hill						Gravel	
Ludgate Hill Road 1	12	Ludgate Hill						Gravel	
Ludgate Hill Road 1	15	Ludgate Hill						Gravel	
Ludgate Hill Road 1	18	Ludgate Hill/ Cornhill		Bridge and revetment, not necessarily pre-Boudican				Gravel	
Ludgate Hill Road 1	19	Ludgate Hill						Gravel	
Ludgate Hill Road 1	20	Ludgate Hill			None, on trampled brickearth; elsewhere on dumped building material			Gravel	
Ludgate Hill Road 1	22	Ludgate Hill	c. 7.5–8.5 m		Sands	Clayey silts		Gravel	
Ludgate Hill Road 1	28	Ludgate Hill						Gravel	

the ditches were dug perpendicular to the roads, ostensibly to drain water away from them (e.g. Sites 1 and 89) and two redirect water underneath the roads (Sites 22 and 51). The drains at Sites 22 and 1 were probably sections of a single drain that redirected a tributary stream of the Walbrook; that this drain was timber-lined underneath the road suggests either that the land was so marshy the road would not have been passable without a proper drain or that the land-clearers may have been acting in anticipation of settlement on either side of the road. At many sites the conditions were such that not enough time was allowed to record early cut features or the reports and descriptions available do not detail them; there have almost certainly been more land-clearance features exposed than have been recorded or illustrated.

Road building

Direct archaeological evidence for the presence of roads in the form of make-up deposits, surface metalling, roadside drains, bridges, and stream revetments (Figure 9, Table 9) has been exposed at thirty-four sites. There are more than 500 contexts representing the construction of these roads. Other roads that existed in pre-Boudican London were stratigraphically later and built in association with Group 2 and/or 3 structures (see Chapters 3 and 4).

Ludgate Hill Road 1

The Londinium–Callewa Road west of the Walbrook Stream, Ludgate Hill Road 1, was first discovered by Sir Christopher Wren during his excavations for the reconstruction of St Mary-le-Bow Church in 1671–3 (Wren 1750: 265; Merrifield 1965: 120). Since then the road has been revealed in at least twelve other excavations and can be dated to during or after the winter of AD 47/48 (see page 21). The evidence suggests that it was between about 7.5 and 8.7 metres wide and was constructed of gravel surfaces overlying make-up deposits ranging from clay to silt, sand, and redeposited brickearth, and directly

overlying the natural brickearth in others. The surface was a compact gravel metalling that underwent several resurfacings during the Roman period and probably at least two during the pre-Boudican period (as at Site 22). Ludgate Hill Road 1 led west to Callewa, but also continued north-west as Watling Street to Verulamium. Part of that stretch of road near Brockley Hill in Middlesex has been excavated and found to be similar in composition and dimensions to Ludgate Hill Road 1 – it was composed of a clay make-up layer overlain by compacted gravels and a metalled surface approximately 9.4 metres wide (Bowsher 1995: 48).

Along the stretch closest to the Walbrook crossing the road was flanked by timber box drains and also associated with cross-drains under the road and other perpendicular drains to the north and south to redirect water from the tributary streams away from and underneath the road. It is difficult to know whether the roadside drains were lined with timber from the earliest date, but certainly at least one cross-drain under the road was originally constructed of timber. In at least three stretches of the road a large quarrying/drainage/planning ditch constructed at approximately the same time ran parallel to it (see page 37).

The road sloped up at a 4.5 per cent incline east from the Fleet River to the extreme western end of the future settlement then levelled off for about 560 metres and sloped down over around 280 metres at a 2 per cent decline to the timber bridge over the Walbrook and continued east after the bridge as Cornhill Road 1.

At two sites (Sites 19 and 20), it is possible that the sections of road excavated represent a later widening of Ludgate Hill Road 1 on its southern side, and so the edges of the road are indicated with a dashed line on Figure 9. Ceramic building material (c. 9.4 kg) found in the make-up strata for Ludgate Hill Road 1 at Site 20, not found in the layers underlying Ludgate Hill Road 1 at other sites, is supporting evidence that this widening probably post-dates construction and habitation in the settlement. Also, the southern edge of the road elsewhere does not form a continuous line with its position at Site 20, although the alignment is the same.

Cornhill Road 1

The first segment of the Londinium–Colonia Claudia Road east of the Walbrook Stream, Cornhill Road 1, has been located on five sites. It ran parallel to the Thames shore and perpendicular to the bridge across the river, although it was probably angled slightly north-west at its western end to reach the Walbrook crossing. It rose at a 2.5 per cent incline over roughly 180 metres east from the Walbrook crossing then levelled off for the remaining 490 or so metres, although it sloped down slightly at its eastern end. It was excavated across its whole width at Site 51, and was found to be only about 4.0 metres wide when first constructed, although evidence from Site 62 suggests that it was more than 4.6 metres wide west of the main crossroads on Cornhill, while Marsden (1987: 17) estimated that the road was originally about 9.0 metres wide. It was constructed of compact gravel, which underwent several resurfacings during the Roman period, laid directly on the natural brickearth. The road had timber box drains at least for part of its course, which may not have been original to its construction. Unlike Ludgate Hill Road 1, there is no evidence for large parallel ditches or cross-drains associated with Cornhill Road 1, which crossed no streams and required no major drainage.

Cornhill Road 2

Cornhill Road 1 continued as Cornhill Road 2 after a turn north-east towards Aldgate and Colonia Claudia – a turn which is now known to be further east than previously thought (see Birbeck and Schuster 2009; Dunwoodie forthcoming). This turn prevented Cornhill Road 2 from crossing the Lorteburn Stream channel and kept it extremely level. Cornhill Road 2 itself probably also turned again to the north-east, if the alignments and placements of the large ditches as well as later buildings can be used to determine its course where there is no direct evidence. In its earliest state it has only been excavated at one site (Site 54), where it was found to be at least 10.0 metres wide, lending credence to Marsden's

suggestion that the connecting Cornhill Road 1 was about 9.0 metres wide in parts. At Site 53 there is an indication of the position of the gravel surface in the form of a later resurfacing, and perhaps widening (see Chapter 4). The construction of the continuation of this road is much different 4.5 kilometres east of Aldgate at Old Ford, where boundary ditches 25.5 metres apart (from their centres) mark the area of a wide scoop filled with redeposited brickearth, capped with rammed gravels forming a road 4.6 metres wide and accompanied by trackways on either side (Brown 2008: 84). That this road, very clearly outside the later settlement area, had a surface only 4.6 metres wide, suggests the possibility that the road varied in width at different points and that each variation did not necessarily suggest a specific use for different stretches of road.

Cornhill Road 3

Cornhill Road 3 led north from the bridgehead at a 5 per cent grade (although the height of the bridge, which is unknown, could have lessened this incline) along its roughly 240-metre length to the main crossroads with Cornhill Road 1. A north–south road leading from the bridgehead north to connect to Cornhill Road 1 clearly would have been necessary, but Cornhill Road 3 has only been tentatively located at its southern end near the waterfront in the form of a limited area of gravel metalting at Site 66. The bridge would have joined Cornhill Road 3 to Southwark Road 1 across the Thames, a distance of around 350 metres. Although there is no direct evidence of the bridge in the pre-Boudican period, it almost certainly existed at the same time as associated waterfront revetments (one of which has a *TPQ* of AD 52; see page 22) and, although a ferry is not inconceivable, the bridge was probably constructed at the same time as the main roads (in or after AD 47/48).

The sharp angle of Cornhill Roads 1 and 2, and the orthogonal arrangement between Cornhill Roads 1 and 3, may be significant. If the purpose of these roads was to connect the Thames crossing to Colonia Claudia, then there could, presumably, have been one straight road

from the Thames heading north-east. This more complex arrangement alludes to a different objective. The layout strongly resembles the basis for a grid-planned town and could indicate that the road builders were planning for the possibility that a settlement would be constructed. The distance between the T-junction of Cornhill Roads 1 and 3 and the turn for Cornhill Road 2 is approximately the same as the distance between the T-junction and the Walbrook crossing. The apparent symmetry and orthogonality afforded by this arrangement could indicate intentionality and the anticipation of a later planned settlement. The arrangement could also have been to station a control – for example, to collect a toll or to intercept people and goods – as has been suggested as an interpretation for the earliest building at Site 50 (Williams forthcoming; see [page 44](#)). The intersection of Cornhill Road 1 and Cornhill Road 2 could have been conceived of as a significant boundary; there is no topographical reason why Cornhill Road 2 and Cornhill Road 1 might not have been constructed to intersect further west. The later burials along Cornhill Road 2 (see [page 54](#)) also support the possibility that it was originally planned to be a road outside the main settlement. Equally, however, a T-shaped crossroads where the bridge-approach road (Cornhill Road 3) and the Calleva-Colonia Claudia road met might have been considered proper to the road surveyors; the turning of Cornhill Road 2 could have been undertaken merely to maintain a level surface, avoid the Lorteburn Stream, and change direction north-east for Colonia Claudia.

Southwark Road 1

The Londinium–Rutupiae stretch of Watling Street across the eyots was an approximately north-east–south-west road (Southwark Road 1) leading south from the bridge-head, across the highest ground on two sandy eyots, crossing the channel in between them and then continuing across another channel to the mainland, where it turned east towards Rutupiae and also linked into Stane Street to reach Noviomagus to the south-west. It was not a straight road, and turned when necessary for the best

placement across the eyots. Like Cornhill Road 2 it was an extremely level road surface. Southwark Road 1 has been exposed archaeologically in at least fourteen excavations, and the evidence suggests that it was built with two distinctly different methods: close to the southern bridge-head, at four sites (Sites 99, 102, 103, and 110), the metalled compact gravel surface was laid directly on natural clay. Elsewhere, however, where the land was probably less dry and stable, there was a complex timber-corduroy make-up of one or two layers of timbers (alder, willow, and/or oak) set in clay, sometimes held in place by vertical stakes, and covered by sand underneath the gravel surface. The road was approximately 7.0–10.0 metres wide along its course across the two eyots, widening to 12.0 metres on the mainland. Log bridges with accompanying revetments have been found where the road crossed the two channels as well as where the road crossed a smaller channel on the mainland; the construction of the road was also accompanied by dumping sediment in the channels. Despite the quantity of timber used in the construction of the road, a sample has never provided a dendrochronological date for its construction.

Southwark Road 1 was resurfaced many times during the Roman period, although the number of resurfacings during the pre-Boudican period is unknown because of the lack of associated fire debris and well-dated structures along the road (with the exception of Sites 99 and 101). No roadside drains have been recorded in the pre-Boudican period, although they are known later and there are ditches associated with the road that probably served to drain the land (at Site 101). Other sections of large Group 3 ditches have been excavated parallel to Southwark Road 1, at Site 96 (see [page 68](#), below); but, as they were open and not built over during the pre-Boudican period, they are included in Group 3. It is not impossible that they were constructed at the same time as the road, however.

Other deposition

Identifying deposition in Group 1 in association with road construction is fairly simple, but in open areas it is more difficult – there are a limited number of instances

Table 10. *Possibly early Group 1 deposition not associated with road construction*

Site no.	Zone	Description
15	Ludgate Hill	Redeposited natural brickearth associated with road building/ditch digging
19	Ludgate Hill	Dumping associated with quarrying and large laying-out ditch
23	Ludgate Hill	Brickearth dumping preceding Group 2 dumping/burial, road building, probably associated with large ditch
37	Cornhill waterfront	Early deposits, associated with gravel quarrying
53	Cornhill	Rubbish pits, dumping, and trample before Group 2 construction
56	Cornhill	Site-wide levelling before digging Group 1 large ditch
67	Cornhill	Evidence of external activity, charcoal deposition; stratigraphically before road-building
73	Cornhill	OA2 dumping associated with large ditch and before Group 2 activity
75	Cornhill	Site-wide levelling followed by Group 2 activity, including a burial
96	Southern eyot	Uppermost fills of natural channel, stratigraphically contemporaneous with road-building
100	Mainland south of Thames	Dumping in OA2, not underneath road, but associated with the filling in of a natural channel beneath SR1
101	Northern eyot	Peat deposits in OA2 before Group 2 construction

where early deposition is stratigraphically relatable to, and contemporaneous with, other Group 1 activities (Table 10 – see site locations on Figure 5) at twelve sites representing rubbish pit fills, trampled or redeposited natural brickearth, and dumps of sediment and material possibly in relation to land levelling in preparation for road construction. The assignation of Group 1 to contexts has been relatively conservative, and the majority of early deposition is to be found in Group 2. An attempt has been made to identify at least some Group 1 deposits, however, so that their artefact assemblages might illuminate the earliest activities (see Chapter 5).

Early structures

Although there are no labelled buildings (meaning that there was no evidence sufficient to identify a ground plan or definite structure) associated with Group 1, postholes or structural cuts and timbers were excavated in Group 1 contexts (see Figure 8). These remains are evidence of ephemeral structures, fences, and surveying markers probably built and used by the people undertaking the road construction and so have been discussed with the land-clearance and preparation features.

It has been hypothesised that some early buildings that do not align with the nearest road or match the alignment

of later structures might pre-date the construction of the roads: the very ephemeral remains of Building 1 at Site 50 south of Cornhill Road 1 (Williams forthcoming) and the partially excavated circular Building A and its associated ditch at Site 13 north of Ludgate Hill Road 1 (Perring et al. 1991). Yet, because no stratigraphic relationship with the nearby roads was found at those excavations, these hypotheses are based on the differential alignments. Other Group 2 and 3 buildings vary in their relationship to the roads, however, and alignment alone cannot be taken to signify chronological relationships in this instance; there is another building north of Cornhill Road 1 at Site 51 that was also not aligned to the road. Similarly, there are round buildings that are Flavian or later in date (at 10 Gresham Street, north of Ludgate Hill Road 1; see Casson et al. forthcoming), and so circular structures need not be pre-Roman.

THE OVERALL PICTURE

Two decades ago Perring (1991: 5) suggested that we cannot be certain whether the army had to accommodate an already-settled Londinium into the road system or whether Londinium was planned as part of that system. There is, however, a third possibility: Londinium was settled because the roads already existed. It seems clear

that the only explanation can be that the roads were constructed before the settlement was planned, with no necessary intention on the part of the road-building authority to plan a town (*contra* Perring 1991; Williams 1990, forthcoming). The dating evidence suggests that the land was cleared and drained and the main east–west road on the northern bank was constructed in or after the winter of AD 47/48 (Tyers 2011), the complex timber-corduroy-and-gravel road South of the Thames at approximately the same time (*contra* Sheldon 2000), as well as the bridge, which was probably in existence when a nearby revetment was built, in or after AD 52 (Brigham et al. 1996; Watson et al. 2001: 32).

On all sites the roads and associated land-clearance/drainage and quarry-pit features are the stratigraphically earliest and structures and their associated occupation deposits are later. The earliest activities, especially quarry pitting and the construction of large ditches, left the land along the sides of the roads ill-prepared for settlement, and those who designed the roads had little intention of planning for later structural development – they created no building plots, no boundary ditches or other property dividers, no defensive earthworks, no *insulae*, no forum area, and no other common features of a town in the process of being planned. These features appear only after the road building had been completed and the land had been extensively levelled, filling in the Group 1 cut features (see Chapter 3). The quarry pits and intrusive land-clearance features lining the roads necessitated major land levelling (found in Group 2) at many sites.

It is nearly impossible to compare this period to other mid-first-century settlements in the south-east because the earliest development is rarely as widely excavated and recorded or discussed in such detail. A thorough analysis of contemporaneous sites, at the context level, would make such comparisons possible.

This collation of the evidence allows for a short comment regarding the suggestion that V-shaped and ankle-breaker-profile ditches represent military occupation at Londinium. The collection and mapping of all known evidence for large, early ditches (see pages 36–8 and Figure 9) shows that these ditches do not represent a

cohesive enclosure of any kind. They are overwhelmingly associated with known streams and roads, and it is very likely that they served drainage, quarrying, and planning functions. Their profiles could be taken to suggest that those doing the digging had experience digging military defensive ditches, although there is no evidence that V-shaped ditches in civilian settlements were constructed by teams of soldiers or veterans, and many Iron Age ditches bear V-shaped profiles (e.g. those at Woolwich Power Station, Greenwich: see Wait and Cotton 2000). Regardless, the hypothetical identities of original diggers do not support the identification of an early military settlement.

The question of who financed and organised the road construction is, in fact, an open issue, as is the identity of the labourers themselves. It is possible that residents whose properties bordered a road were responsible for its upkeep, but in Londinium, where there was not yet a settlement, such a duty (or *munus*) is not applicable in the earliest period. The remaining possibilities are local tribal authorities, the military, or the state through the *curatores viarum* (Millar 1986: 299–300). The often-assumed link between road construction and the advance of the army during the invasion (e.g. Johnston 1979: 39–44) is a circular argument and wholly without supporting evidence. Clearly, the pacification of the south-east was well under way before the construction of the Calleva–Londinium road (in or after AD 47/48).

Regarding the labourers, whether soldiers under the direction of army engineers or conscripted labourers organised by construction contractors carried out the work is unknown. The variety of techniques used in the road building may be the result of the builders' different ways of building on different types of land, or it may suggest different teams of workers. The roads vary in width, materials used, number of layers, methods of drainage, and survey techniques. The relationship between these earliest activities and the later settlement is of key importance to the story of the foundation of Londinium.

The evidence presented here also allows the testing of the hypothesis (see page 15) that the roads and bridge at Londinium were built probably around AD 49 primarily to link the new *colonia* at Colonia Claudia to Rutupiae,

and secondarily to link the new seat of government to Calleva in the west and Noviomagus in the south as part of the consolidation of the south-east in the immediate lead-up to the foundation of Colonia Claudia as a *colonia*. The roads and bridge were almost certainly planned and built together as part of the same construction project because, given that there was no settlement at Londinium before the construction of the roads, there would be no reason to divert the Calleva–Colonia Claudia road to the south (towards the Thames) except to intersect Watling Street, which is only possible with the construction of a bridge placed here at the easternmost possible location. This hypothesis would explain the direction of the new roads and the presence of a bridge where there was no settlement, as well as the placement of that bridge.

Perhaps the strongest piece of evidence to contradict this theory is the types of drains constructed to divert the Walbrook tributaries underneath Ludgate Hill Road 1: timber-lined cross-drains underneath the road. Sophisticated methods of drainage, such as timber-lined drains, would, arguably, not be necessary in a location where no settlement was planned. While the roadside drains alongside Cornhill Road 1 and Ludgate Hill Road 1 could have been open, unlined drains at first, and perhaps only later fitted with timber linings and/or covered with planks (it is very difficult archaeologically to determine the elapsed time between drainage-ditch-digging and the subsequent lining with planks), the AD 47/48 drain underneath Ludgate Hill Road 1 certainly was originally timber lined because it was sealed by the road make-up and metalling. This drain may support the hypothesis that the settlement was planned from the beginning, in conjunction with the road construction – although it does not support the idea that this planned settlement was on Cornhill because the drain in question is a cross-drain underneath Ludgate Hill Road 1 on Ludgate Hill.

The most likely explanation is that the imperial administration perhaps anticipated either the intensive use of the bridge and roads or the settlement at the Londinium crossroads, but that they had no hand in the design or undertaking of the settlement. They may, for example, have been aware of the increased merchant interest with

the consolidation and relative demilitarisation of the south-east as well as that trade would prosper with improved communication routes and a more secure peace. Perhaps several interested parties had been applying to charter the land or the *procurator* hoped to provide such an opportunity, for his own gain, by preparing the site well and diverting the water away from the roads. As unoccupied land on the border between two tribal areas, the site may not have been claimed as territory of either. It would, therefore, have gone into the ownership of the Roman state to be dispatched of as it pleased. The sophisticated drainage suggests a degree of foresight and anticipation of heavy use of the roads, but the pitted roadside land shows that the road builders were not setting out plots or preparing for construction.

Traders and merchants, perhaps with kinship ties to tribes in Britain, who had been bringing goods across the Channel from the Continent (from sites in Gallia Belgica and along the River Somme, for example) for, perhaps, a century, continued as they had done before, probably travelling to ports in the south-east as well as inland settlements (see, e.g., discussions of textual, coin, ceramic, and burial evidence for pre-Roman Iron Age cross-Channel social and economic contacts in Creighton 2006; Cunliffe 1984 and 1991: 541–52; Millett 1990: 29–39). In transporting goods along the new Roman roads and, perhaps, travelling down the Thames, they would have been fully aware of the growing infrastructure, improved communication routes, increasing peace, and the benefits offered by the location of the new bridge. There is no reason that I am aware of that a group of independent merchants could not obtain land from the Roman government to plan a new settlement and contract the labour they would need when they arrived (Roselaar 2010).

Group 1 features were followed by significant land levelling, human burials, the first buildings, waterfront structures, and new roads. The story of foundation cannot be understood through Group 1 features because there was no contemporaneous settlement. Analysis of the Group 2 and 3 features allows for a full exploration of the possibilities surrounding the establishment of a town at Londinium.

THE EARLY TOWN

INTRODUCTION

After land clearance and road building were completed, the first settlers arrived in Londinium. These people quarried and deposited large quantities of sediment, both to prepare the ground for construction and to dispose of their rubbish along the sides of the roads and in old quarry and land-clearance pits and ditches. They built the first structures of the Roman town and left behind evidence of associated external activities in yard deposits. They created the first landing and mooring structures, revetted the Cornhill waterfront, and built new roads and a gravel-metalled square on Cornhill.

As the road-builders had done, the first Londoners continued to quarry brickearth and gravel, clear the land of trees, control drainage by redirecting the flow of surface water, and design and construct new roads. New reasons undoubtedly drove these similar activities: the preparation of habitable land and construction of buildings within the framework of a new town. The road-builders left a difficult landscape for the town-builders, riddled with pits and ditches requiring a vast amount of ground preparation. It seems probable that for this reason, as well as on purely stratigraphic grounds, the activities discussed in this chapter represent a distinct phase of the development of early Roman London. The buildings, roads, yards, burials, and other features that are stratigraphically later than the earliest roads and were in use earlier than structures standing at the time of the Boudican fire are separated out in this chapter. Patterns of development and features that appear on some sites can be employed to make reasonable hypotheses to include other sites (for example, those where roads have not been found) in this discussion.

The earliest structures known in Londinium were replaced before the Boudican fire, making them an

important group of demonstrably early buildings. Yet these buildings – and the features and deposits associated with them – are often overlooked, being swept up in the concept of a unified ‘pre-Boudican period’. Focused analysis on this earlier phase may bear great significance for our understanding of the way the settlers conceived of urbanism and how to create a town from nothing. There is no other Roman town where such a tightly controlled temporal isolation of urban construction has been attempted. The structures and deposits in this chapter post-date the initial land clearance and road building, but pre-date the construction of buildings that were standing at the time of the Boudican fire, although contemporaneity between sites is not guaranteed. At some sites some of the Group 2 contexts were deposits on natural sediment, or they were intrusive features that cut into natural sediment where there were no Group 1 features (e.g. Building 1 at Site 50, which Williams (forthcoming) argues could pre-date the roads). Nonetheless, these contexts are either very likely to be later than Group 1 features based on correlation with patterns of land use at other sites, or they are stratigraphically later than Group 1 features on the same sites.

Dating the earliest settlement

Scant, but reliable, dating evidence suggests that some features discussed in this chapter date to in or after AD 51–54+. ¹ A revetment on the Cornhill waterfront was

¹ However, the Group 2 activities do overlap in time with some Group 3 features in certain areas because development across the site was unlikely to have been entirely uniform and the groups are stratigraphically, not chronologically, organised. See [Chapter 1](#) for the explanation of the grouping system.

built in or after AD 52,² which post-dated the initial terracing and earlier waterfront activities. Ground consolidation for a structure further west along this waterfront probably occurred before the winter of AD 54/55.³ The drainage of the Walbrook tributaries near Ludgate Hill Road 1 was improved with a second timber-lined cross-drain during or after the winter of AD 51/52.⁴ Rubbish dumping along Ludgate Hill Road 1 was first superseded by Group 3 construction some time during or after the winter of AD 52/53.⁵ However, along other sections of Ludgate Hill Road 1 the earliest construction began somewhat later: at Site 5 the early round building overlies quarry pits that were being filled until at least AD 54 and was probably not replaced by the structures standing at the time of the Boudican fire until the autumn of AD 59 through the spring of AD 60.⁶

The construction of Ludgate Hill Road 1 (and probably, by association, all activity discussed in [Chapter 2](#)) dates to during or after the winter of AD 47/48 (Tyers 2008, 2011). Because nearly all buildings were aligned to the roads, it is likely that the buildings post-date the roads; certainly on sites where both road and buildings have been excavated the roads are stratigraphically earlier. Also, the lack of ground preparation for construction (i.e. extensive pitting, see [page 35](#)) suggests that there was either a period of time or (awareness of?) planning for a future town separating the earlier road building and land clearance from the first buildings. The earliest dendrochronological date of building construction is late AD 52, which suggests that road construction was completed before then.

The importance of an earlier pre-Boudican settlement

Few scholars have offered separate interpretations of this earlier phase of development, although certainly all will be aware of it from published site reports, especially those from excavations in the City. Such publications generally separate out different phases of pre-Boudican activity (e.g. Hill and Woodger 1999; Hill and Rowsome 2011a; Perring et al. 1991; Philp et al. 1977; Williams forthcoming), but never has the significant pattern of these phases been properly discussed. Some have suggested that early structures not aligned to the roads might pre-date them (see [page 44](#); Perring 1991: 6; Perring et al. 1991: 3; Williams forthcoming), but have not considered the significance of the other stratigraphically earliest buildings. Illustrations depicting the growth of the early town (e.g. Perring 1991: 6–14, figs. 3 and 5) have been used to suggest that it first developed along the main roads, primarily on Cornhill, and expanded considerably by the time of the Boudican fire.

Perhaps only studies that employ large bodies of evidence are able to demonstrate the pattern of distinct phases of structural development of the pre-Boudican town. No large-scale study exists for the City, although a new CBA volume (Williams forthcoming) will compile Roman-period data from twenty-one Cornhill sites. A recent study of Southwark drew together Roman-period information from 100 sites and dedicated several sections of its themed chapters to London's early (pre-AD 70) development (Cowan et al. 2009). Evidence for this earlier phase of occupation is, however, rare in Southwark, as has been shown by the process of grouping contexts for this project. This rarity may be a real reflection of slower development in marginal areas south of the Thames around AD 47–54+, or it could be the result of people having built structures standing at the time of the Boudican fire without ever replacing them,⁷ or it may

² Dendrochronological date from revetment at Site 71 (Brigham and Watson forthcoming).

³ Dendrochronological date from Group 3 Structure 3 at Site 37 (Swift 2008).

⁴ Dendrochronological date from drain at Site 22 (Tyers 2011).

⁵ Dendrochronological date from Group 3 revetment S4 at Site 22 (Tyers 2011).

⁶ Dendrochronological dates from worked timbers in the backfill of a Group 1 quarry pit and from piles supporting Group 3 Building 2 at Site 5 (Hill and Woodger 1999: 8, 11).

⁷ Because there are no dendrochronological dates from structures in Southwark, it is impossible to say when the buildings standing there at around AD 60/61 were built. They are discussed in [Chapter 4](#) because they have only one stage of construction development, unlike the sites with structures discussed in this chapter.



FIGURE 1 Early towns of Britannia and nearby provinces showing territories of tribes and selected roads. Scale 1:4,000,000.



FIGURE 2 Digital terrain model of the south-east of England showing the important late pre-Roman centres. Scale 1:2,000,000.
Data: Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service.





FIGURE 3 The study area: the boroughs of the City of London and the northern part of Southwark with labels for streets relevant to the locations of sites included in this project. Scale 1 : 8,000. Data: Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service.

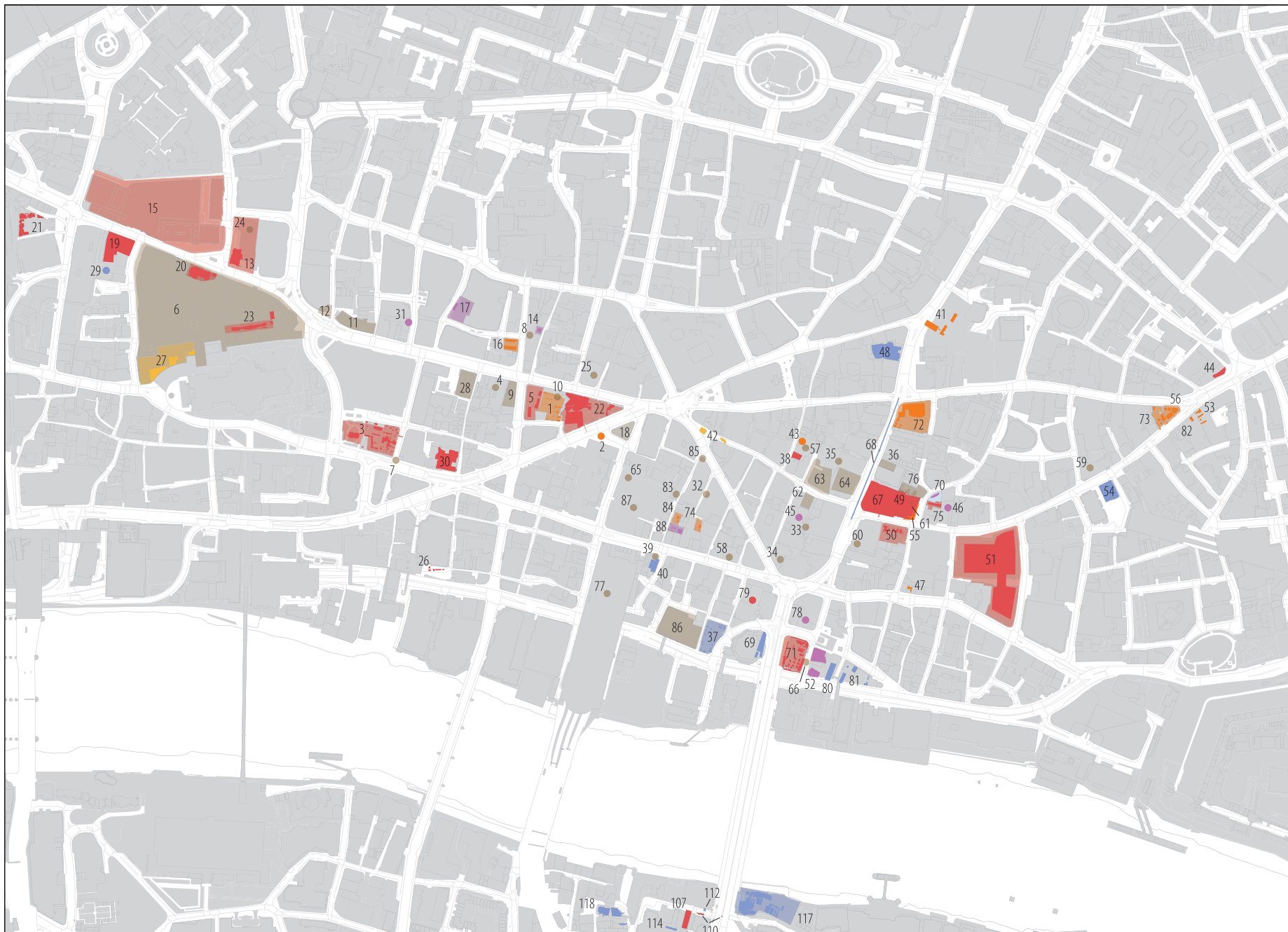




FIGURE 4 Plan of modern London showing the locations of the 118 sites included in this project and availability of publications and data. Scale 1 : 8,000.
Data: Crown Copyright/database right 2013. An Ordnance Survey/EDINA supplied service.



FIGURE 5 The sites with Group 1 (Chapter 2) features. Scale 1 : 10,000.

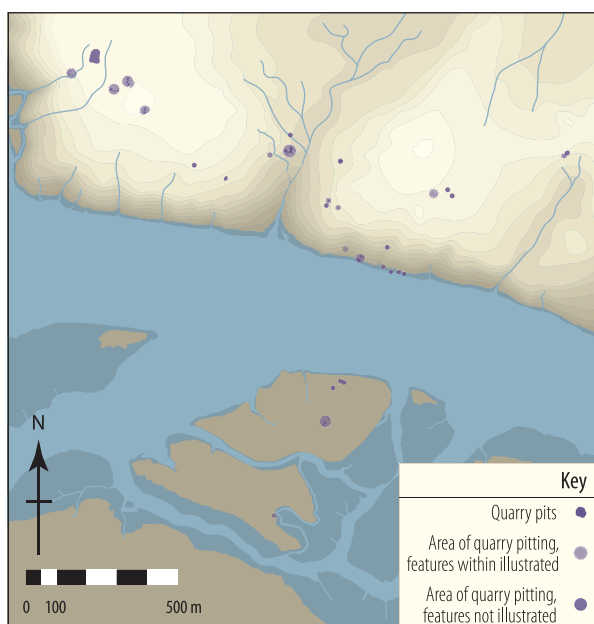


FIGURE 6 Quarry pits, Group 1. Scale 1 : 25,000.

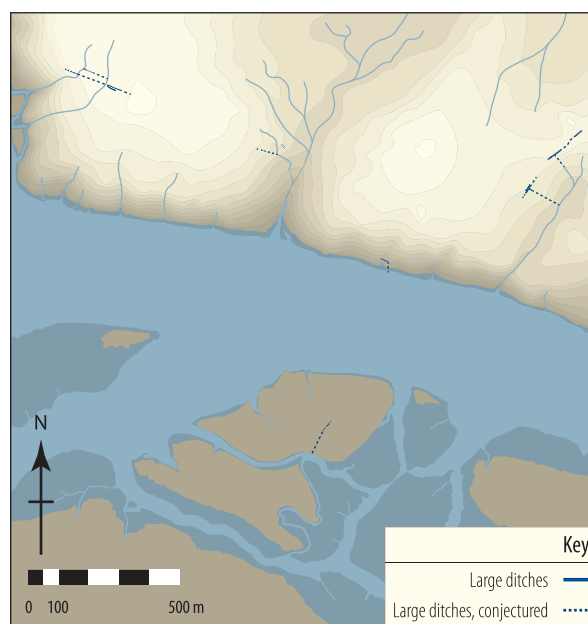


FIGURE 7 Large ditches, Group 1. Scale 1 : 25,000.

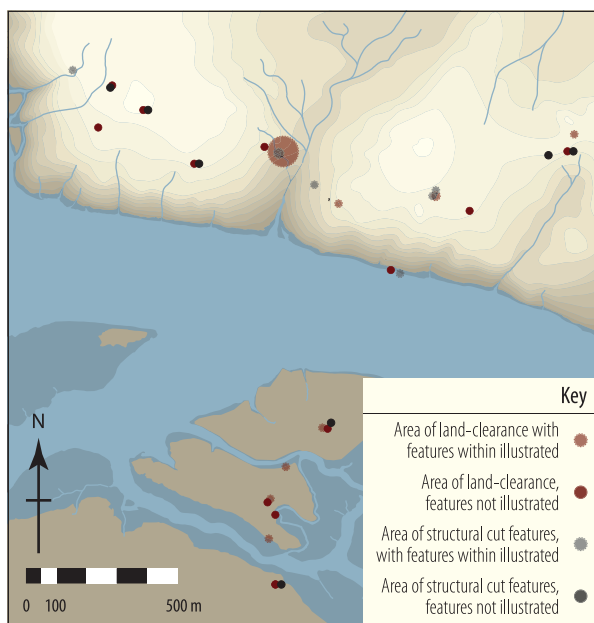


FIGURE 8 Land-clearance and drainage features, Group 1.
Scale 1 : 25,000.



FIGURE 9 Roads and associated drainage features, Group 1. Scale 1 : 10,000.



FIGURE 10 The sites with Group 2 (Chapter 3) features. Scale 1 : 10,000.

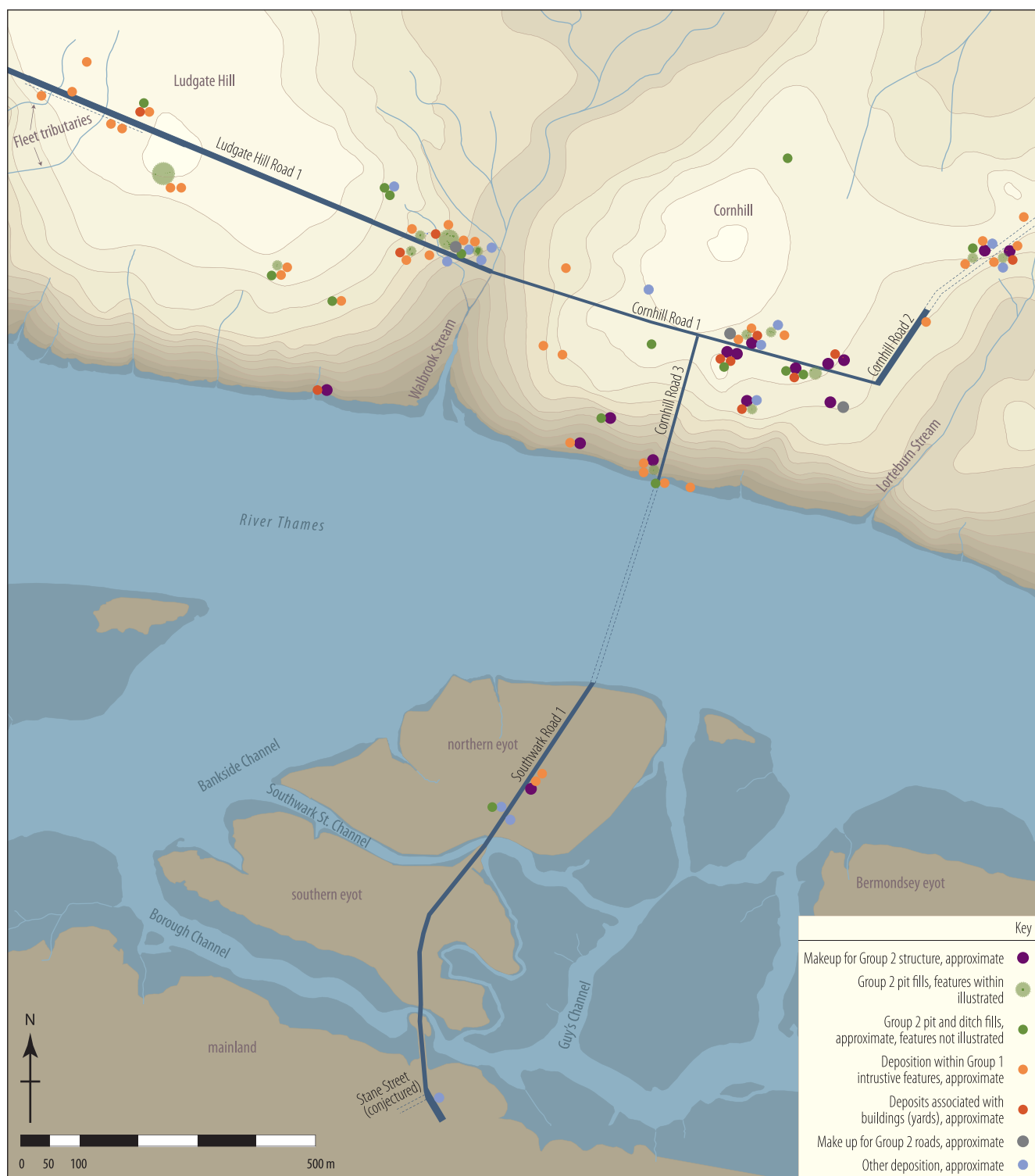


FIGURE 11 Deposition, Group 2. Scale 1 : 10,000.

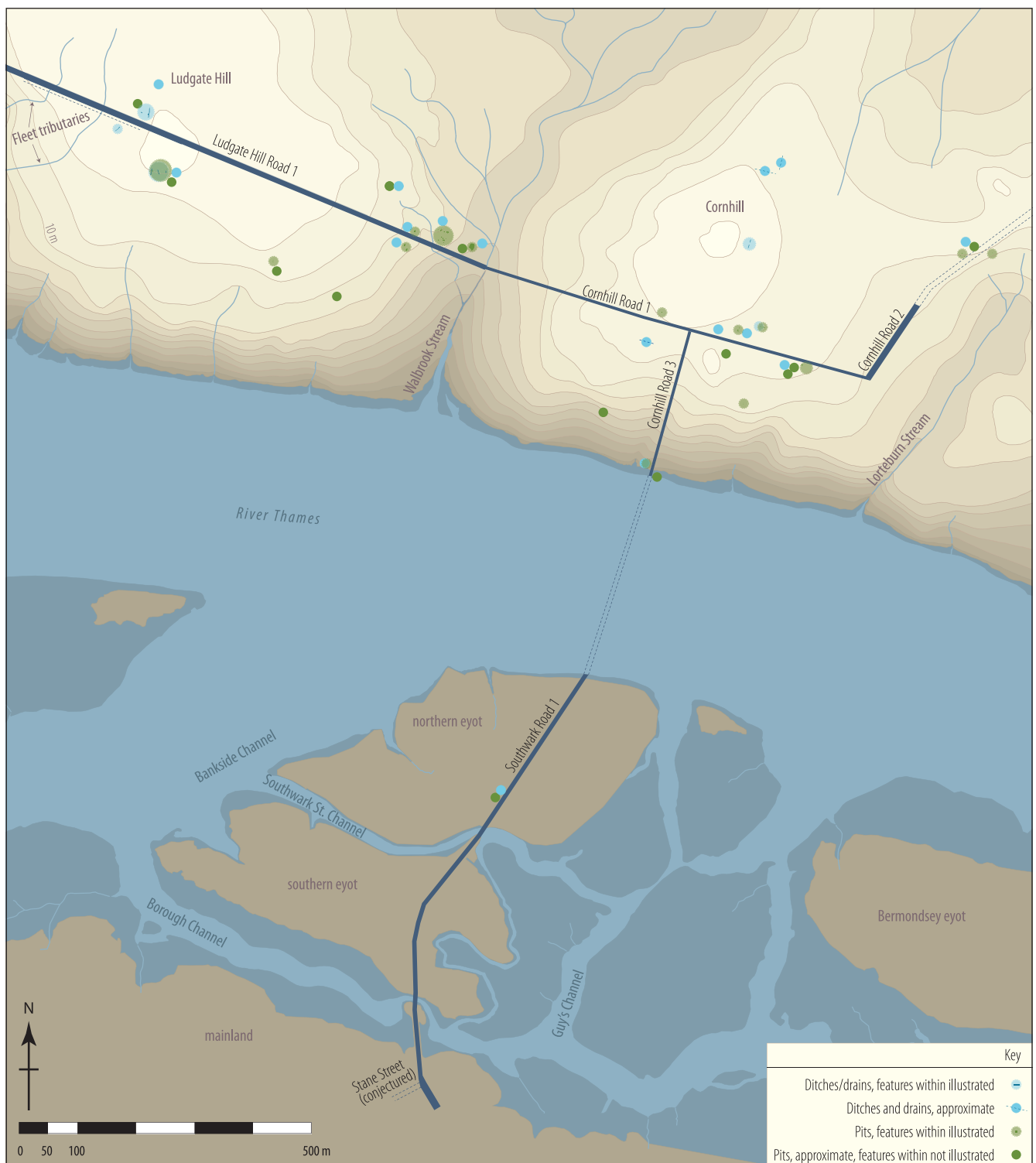


FIGURE 12 Pits and ditches, Group 2. Scale 1 : 10,000.



FIGURE 13 Cornhill roads, Group 2. Scale 1 : 4,000.

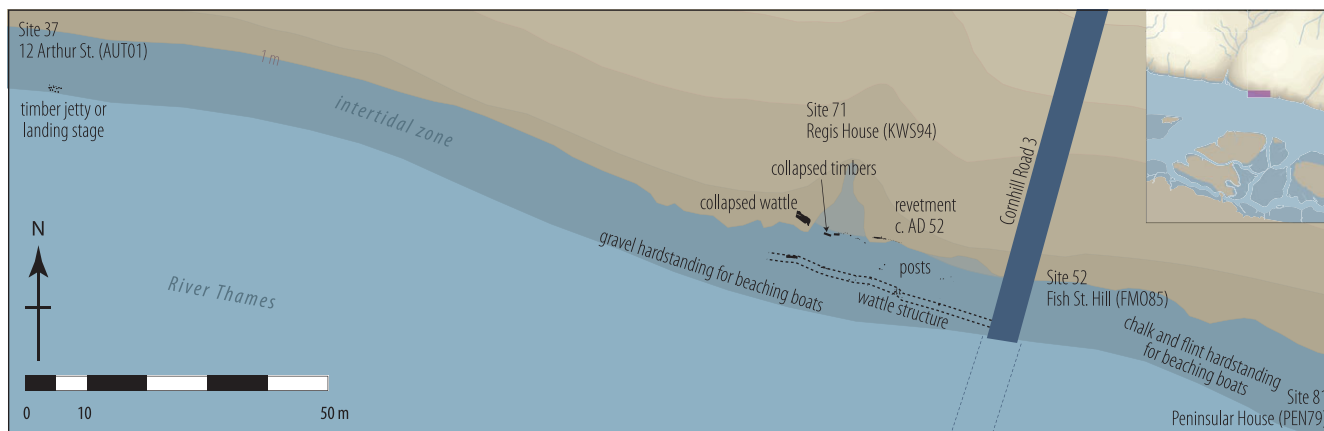


FIGURE 14 Cornhill waterfront, Group 2. Scale 1 : 1,250.

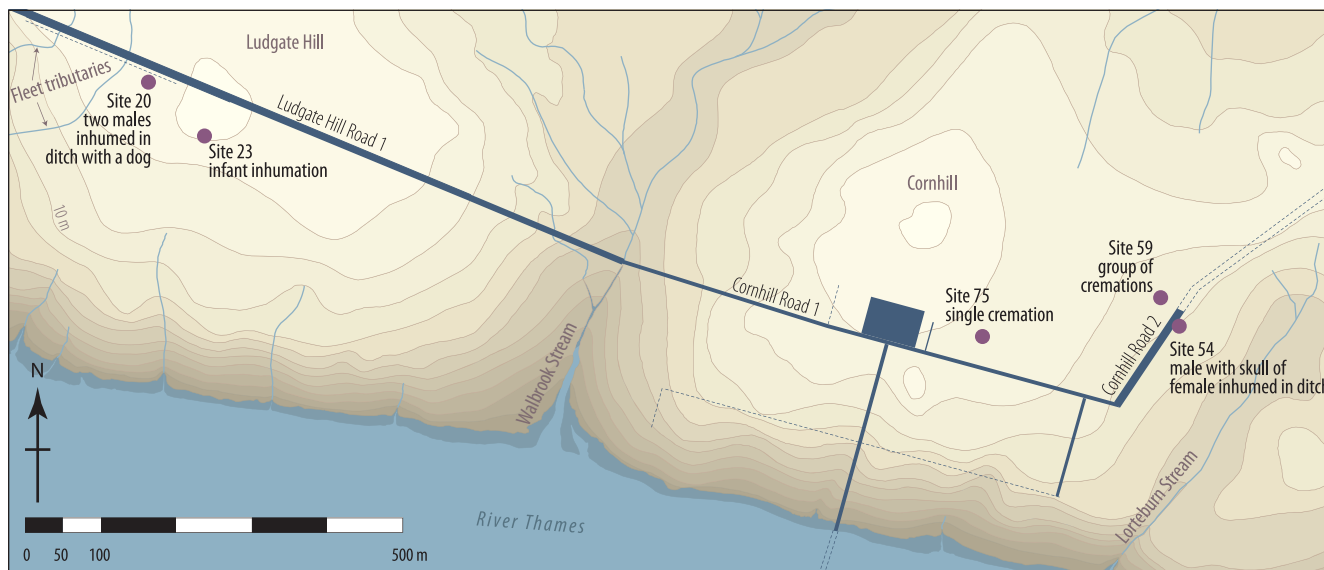


FIGURE 15 Burial locations, Group 2. Scale 1 : 10,000.



FIGURE 16 All illustrated features, Groups 1 and 2. Scale 1:8,000.

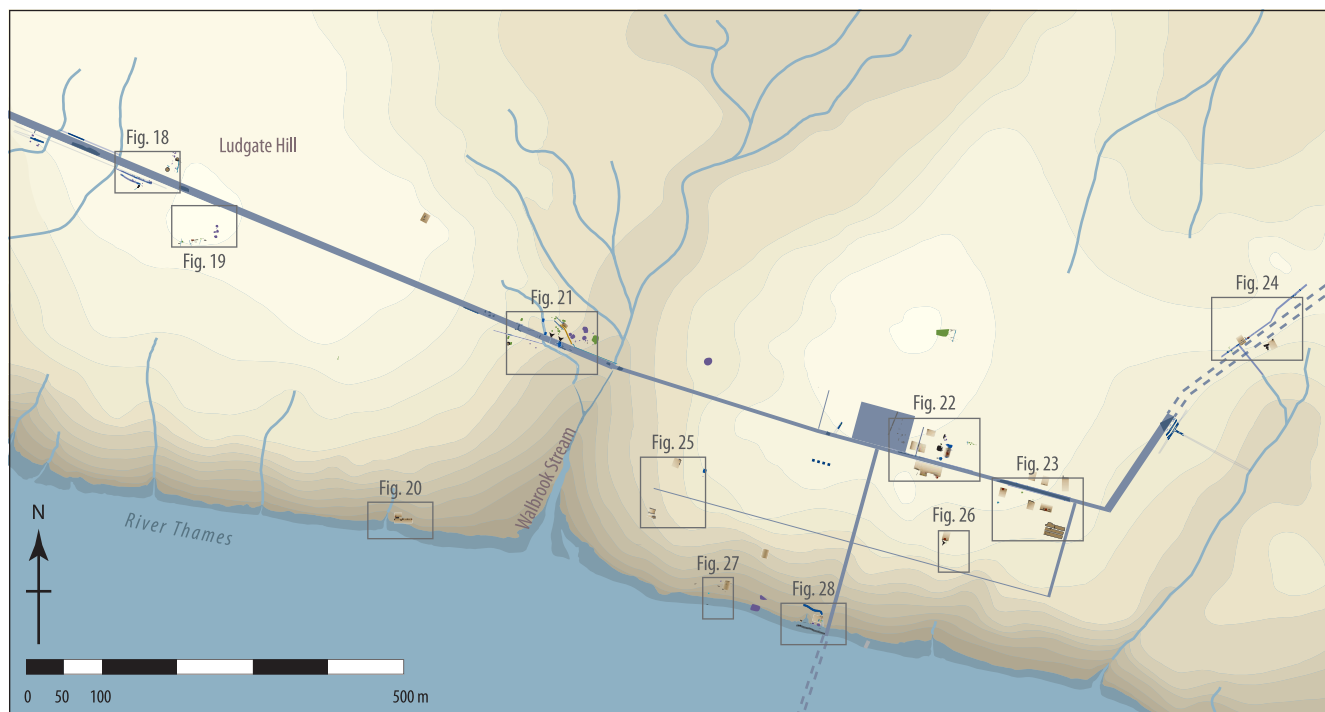


FIGURE 17 Locations of following detailed figures (Figures 18–28). Scale 1 : 10,000.

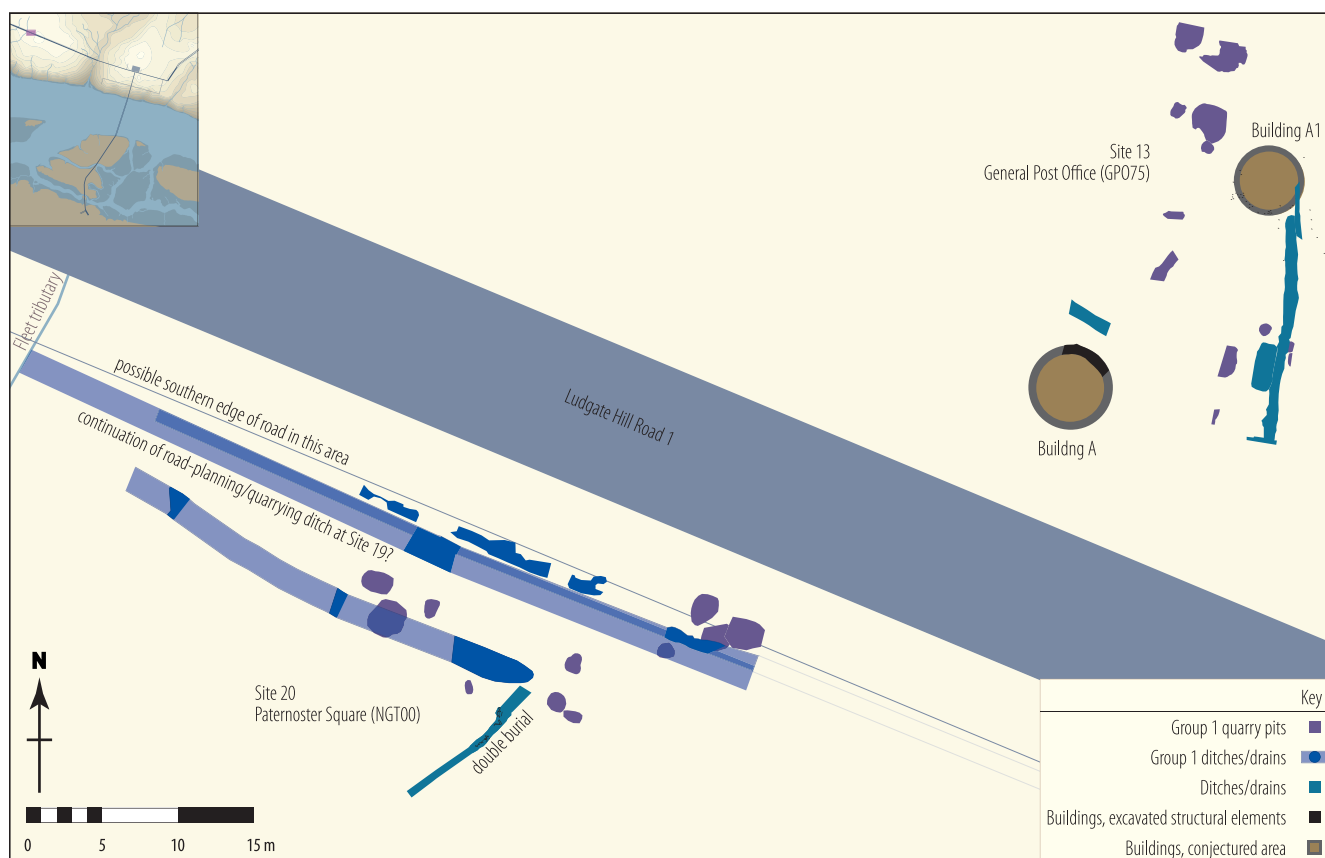


FIGURE 18 Sites 13 and 20, Group 2, at the western end of Ludgate Hill Road 1 (with Group 1 intrusive features also shown; cf. Figure 43). Scale 1 : 500.

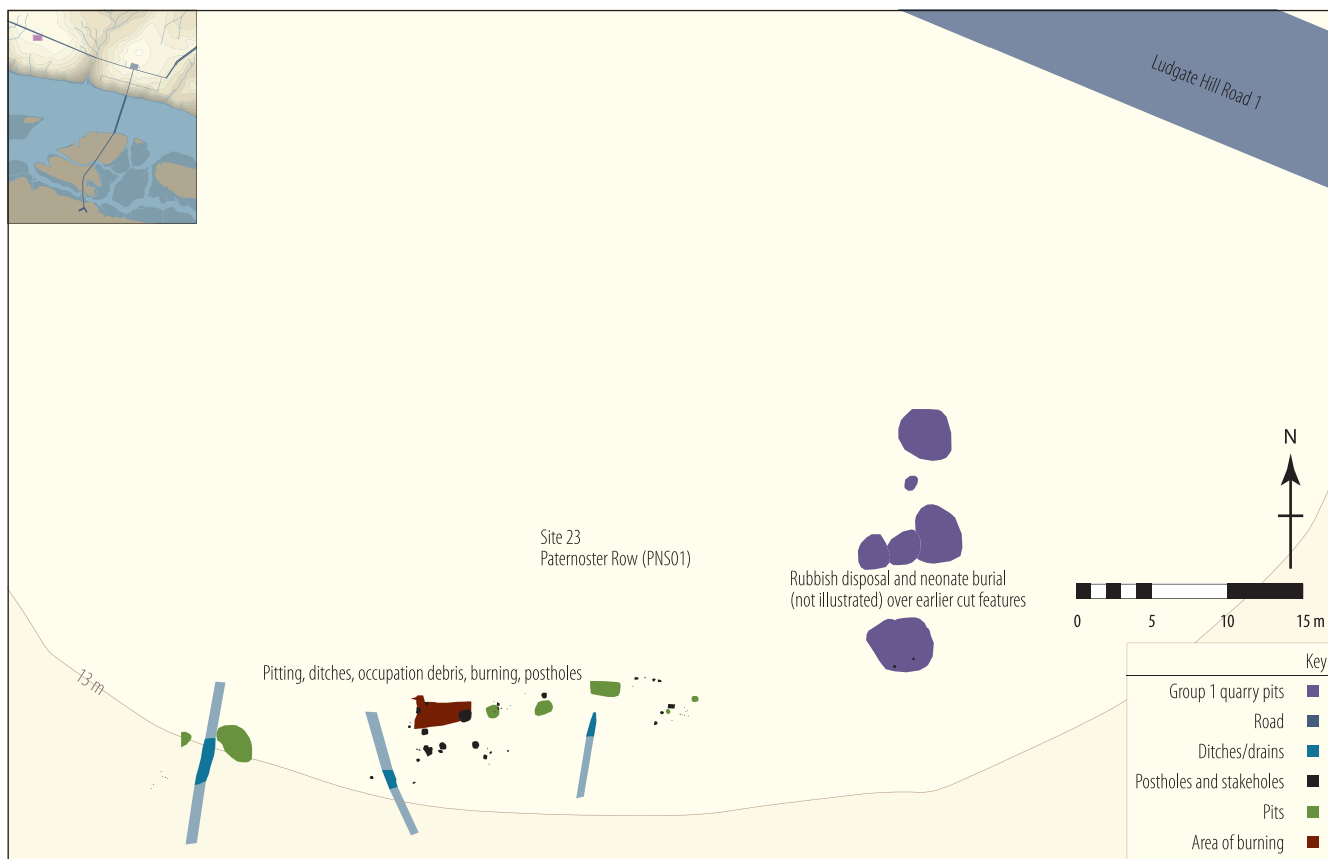


FIGURE 19 Site 23, Group 2, at the western end of Ludgate Hill Road 1 (with Group 1 intrusive features also shown; cf. Figure 44). Scale 1 : 500.

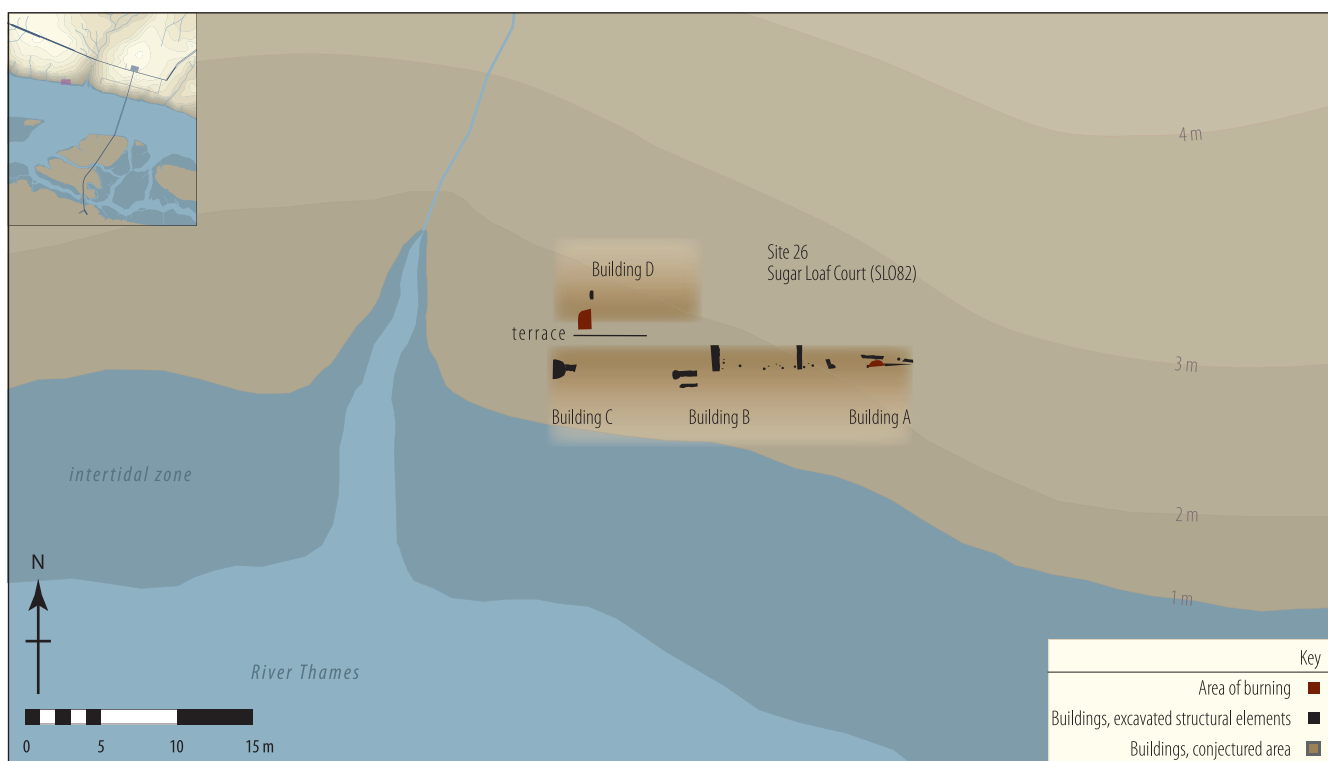


FIGURE 20 Site 26, Group 2, on the waterfront west of the Walbrook (cf. Figure 47). Scale 1 : 500.

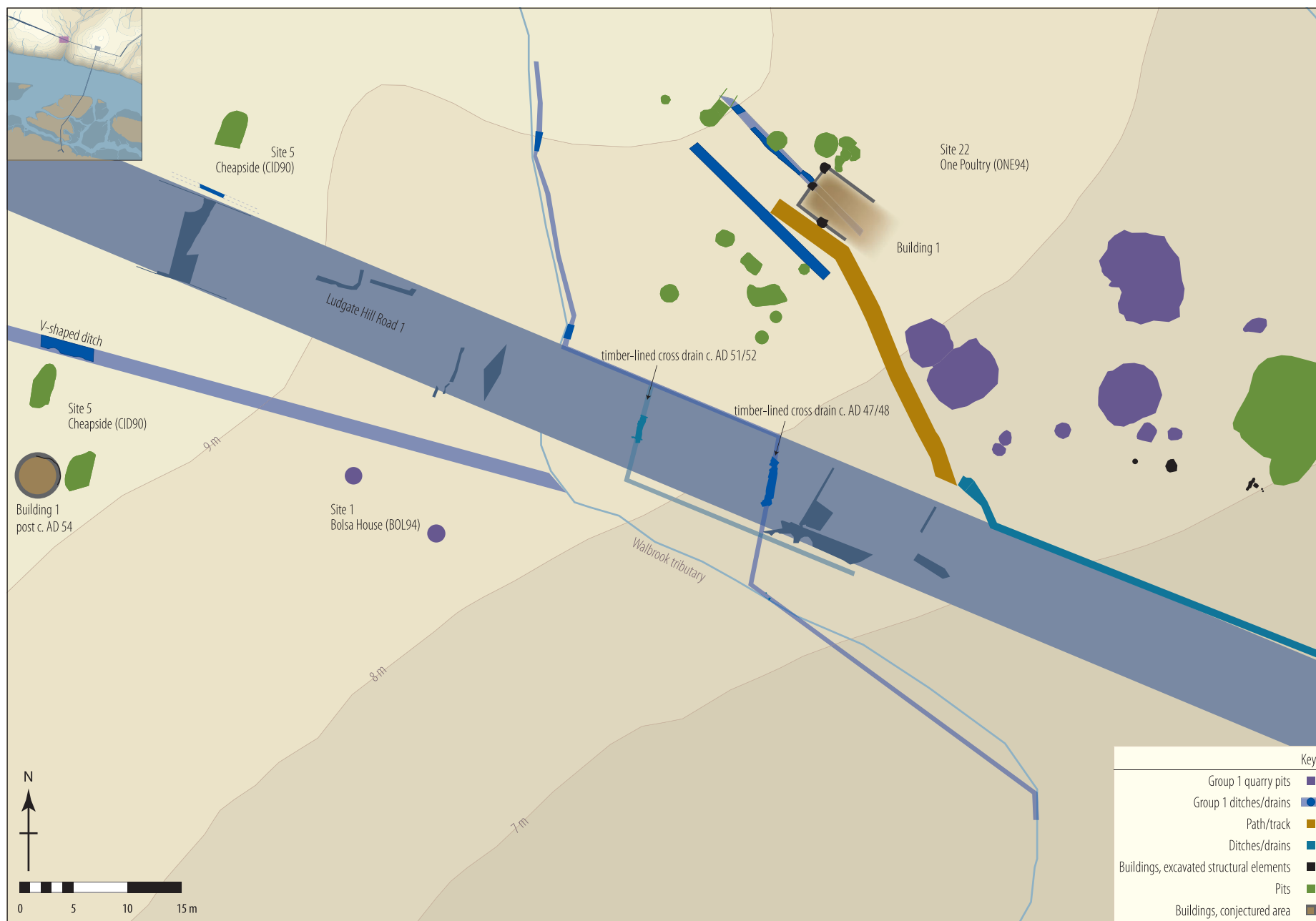


FIGURE 21 Sites 1, 5, and 22, Group 2, at the eastern end of Ludgate Hill Road 1 (with Group 1 intrusive features also shown; cf. Figures 48, 49, and 50). Scale 1 : 500.

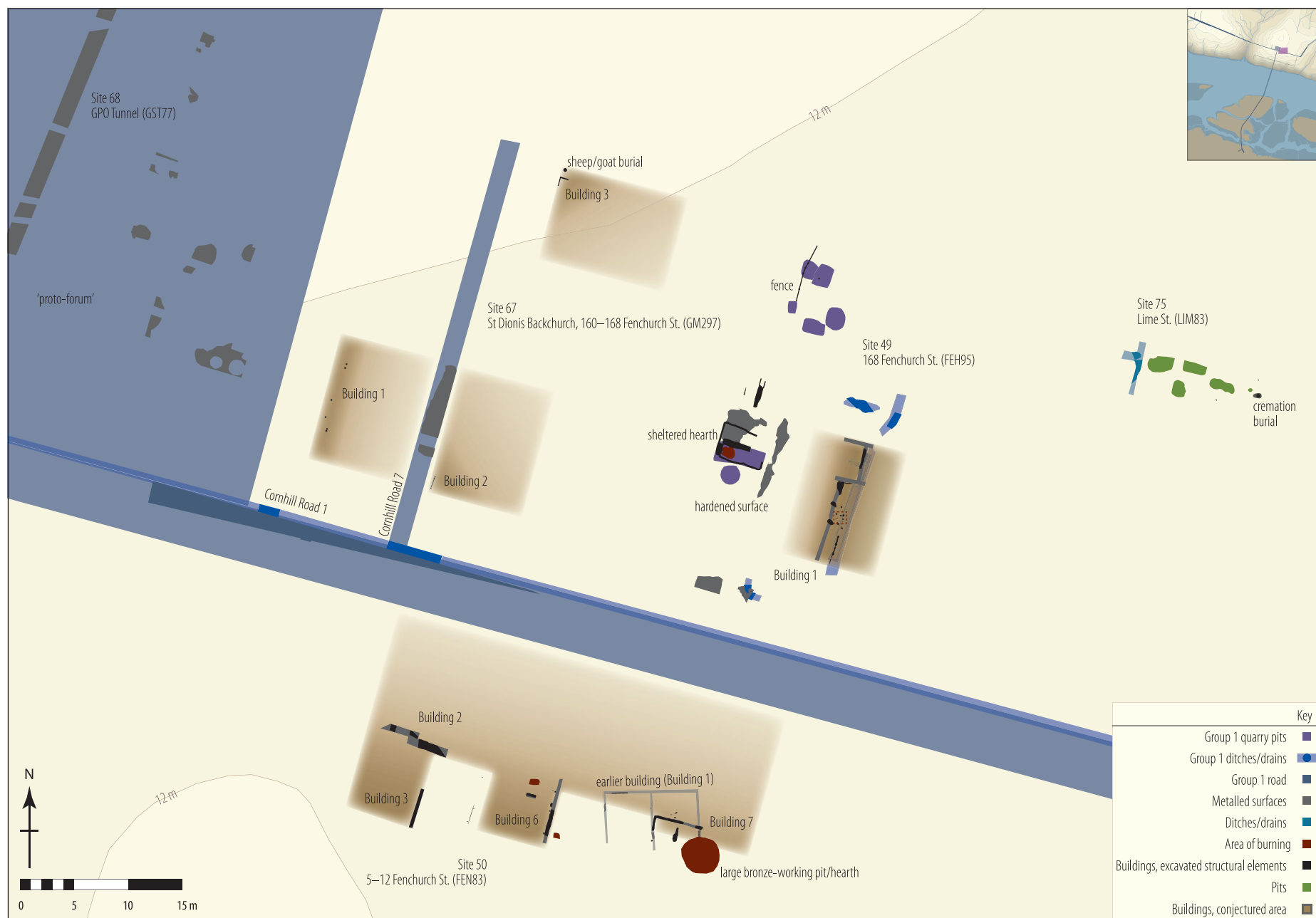


FIGURE 22 Sites 49, 50, 67, 68, and 75, Group 2, along Cornhill Road 1 east of the main crossroads (with Group 1 intrusive features also shown; cf. Figures 51 and 52). Scale 1 : 500.



FIGURE 23 Site 51, Group 2, along Cornhill Roads 1 and 8 (cf. Figures 53 and 54). Scale 1 : 500.



FIGURE 24 Sites 44, 53, 56, 73, and 82, Group 2, along Cornhill Road 2 (with Group 1 intrusive features also shown; cf. Figures 55 and 56). Scale 1:500.

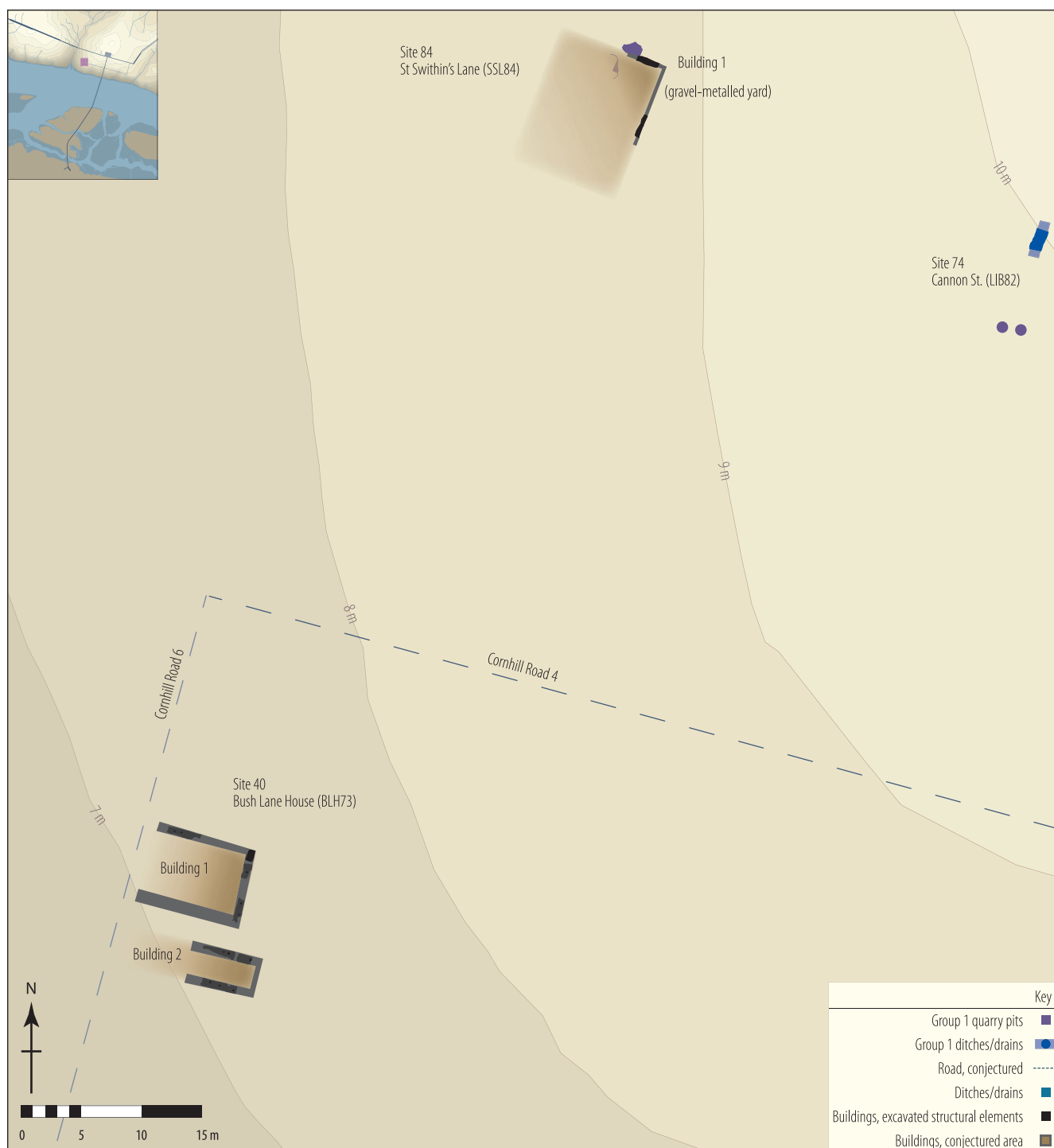


FIGURE 25 Sites 40, 74, and 84, Group 2, along conjectured Cornhill Roads 4 and 6 (with Group 1 intrusive features also shown; cf. Figure 57). Scale 1 : 500.

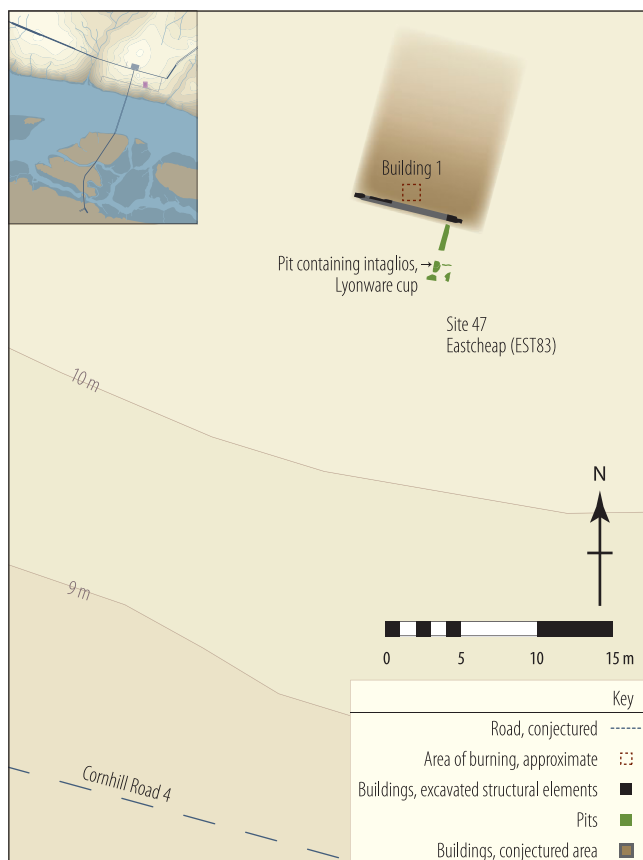


FIGURE 26 Site 47, Group 2 (cf. Figure 58). Scale 1 : 500.

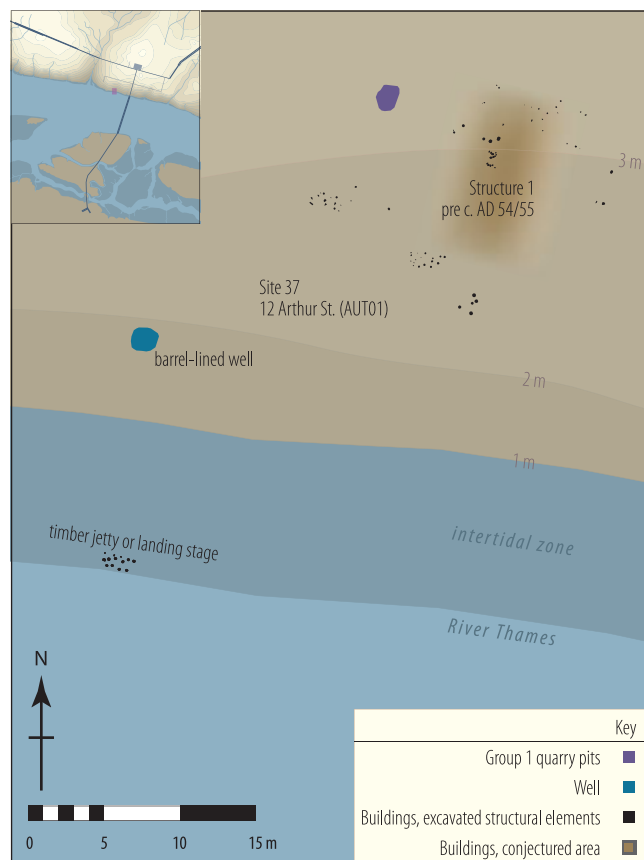


FIGURE 27 Site 37, Group 2, Cornhill waterfront (cf. Figure 34). Scale 1 : 500.

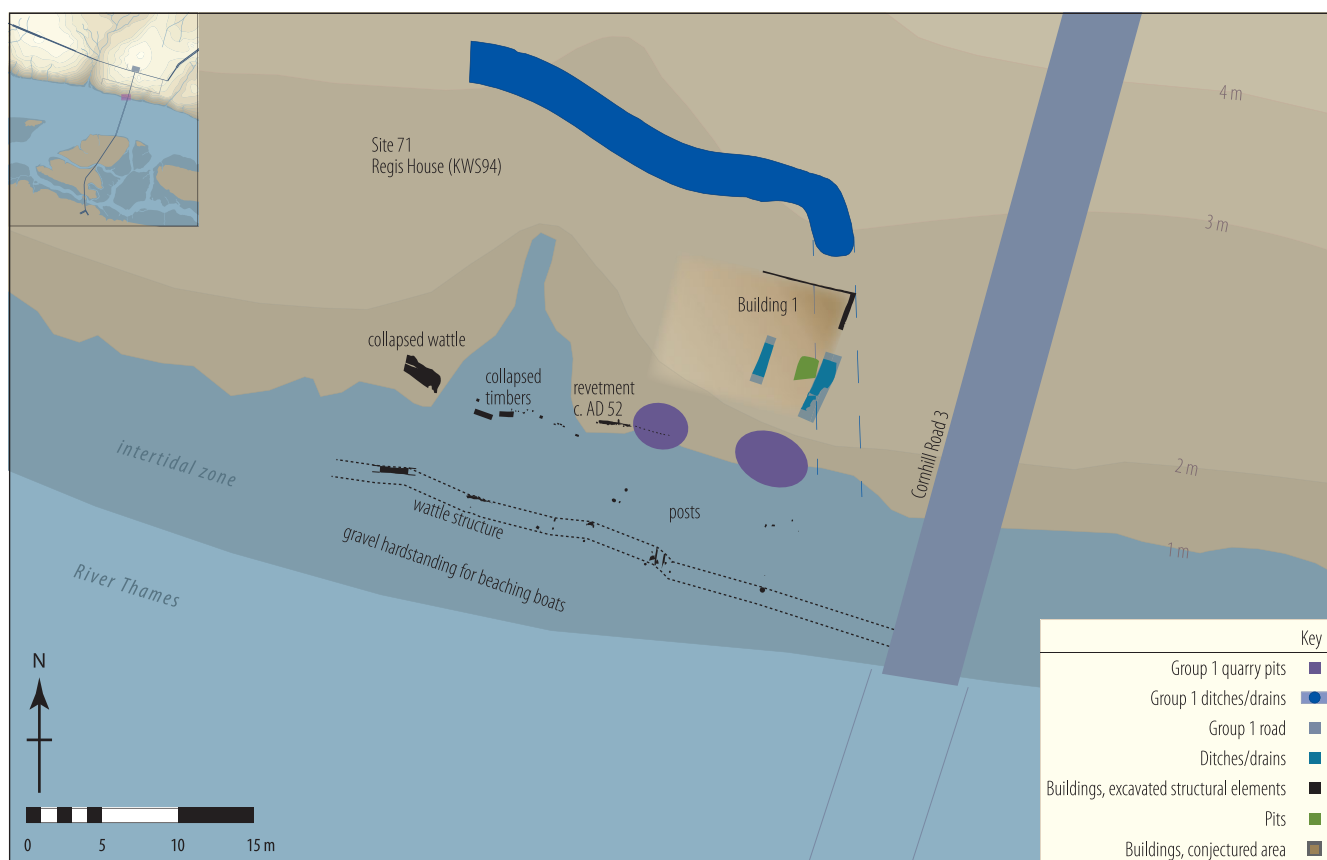
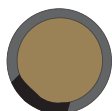


FIGURE 28 Site 71, Group 2, along Cornhill waterfront west of Road 3 (with Group 1 intrusive features also shown; cf. Figure 34). Scale 1 : 500.



Site 5 - Building 1
Wattle and daub
with brickearth floors



Site 13 - Building A
Formed of foundation
cut, no floor identified



Site 13 - Building A1
Wooden posts, no
floor identified



Site 17 - Building 1
Slots for ground beams with
timber posts, no floor identified

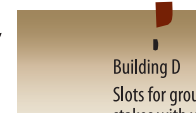


Site 22 - Building 1
Posts packed with clay,
no floor identified



Site 26
Building A
Brickearth sill with
clay and timber
walls, no floor
identified
(brickearth?)

Building B
Wooden posts,
no floor
identified
(gravel?)



Building D
Slots for groundbeams and
stakes with wooden post walls,
no floor identified (sand?)



Site 37
Structure 1
Foundation piles of timber stakes and posts,
no floor identified



Site 38 - Building 1
Stakeholes



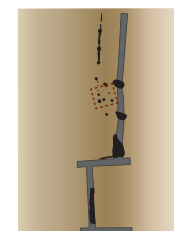
Site 40 - Building 1
Clay-packed post-in-trench
foundation with wooden post
walls and brickearth floor



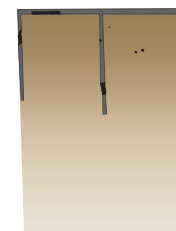
Site 40 - Building 2
Clay-packed post-in-trench
foundation with wooden post
walls and brickearth floor



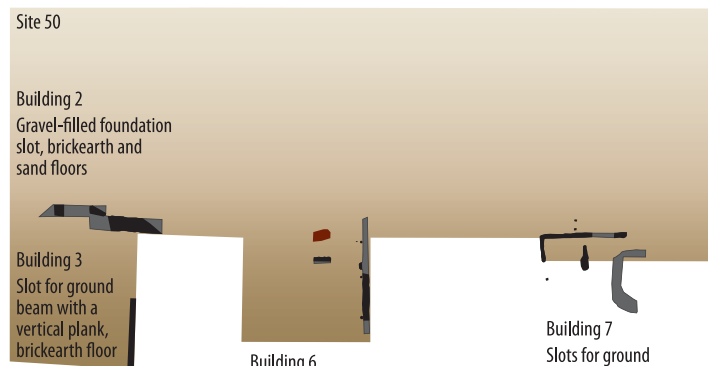
Site 47 - Building 1
Slots for groundbeams, no
evidence for wall type,
brickearth floor



Site 49 - Building 1
Flint-packed post-in-trench
foundation with clay and
timber external walls and
post-and-wattle internal
walls, brickearth floor



Site 50 - Building 1
Slots for groundbeams
with brickearth floor



Site 50

Building 2
Gravel-filled foundation
slot, brickearth and
sand floors

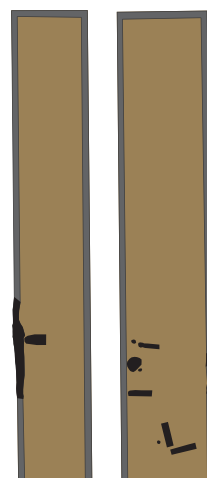
Building 3
Slot for ground
beam with a
vertical plank,
brickearth floor

Building 6
Timber posts for
foundations and walls
with brickearth floor

Building 7
Slots for ground
beams with
timber post walls,
brickearth floor



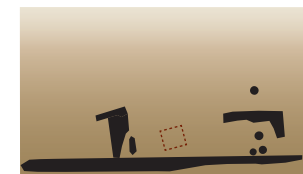
Site 51 - Buildings 1, 2, and 3
Slots for ground beams with clay and timber
walls, no floor identified



Slots for ground beams with clay and timber
walls, no floor identified



Site 51 - Building 15
Slots for groundbeams clay
and timber walls, no floor
identified



Site 51 - Structure 18
Slots for ground beams and posts with timber
post walls, no floor identified

simply reflect the differences between the preservation, excavation conditions, and recording strategies on sites in the City and in Southwark.

DETAILED DISCUSSION OF FEATURES

Included in this chapter are around 3,500 contexts from 48 sites (Figure 10), which includes the fills of some earlier intrusive features (c. 300 contexts) and deposits probably laid down in the earlier period, but still in use, such as the primary road metalling and roadside drains. The features discussed in detail in this chapter consist of extensive land levelling to prepare for construction, rubbish dumping (especially on Ludgate Hill), continued quarrying and ditch/pit digging, the construction of at least two new roads and a large open, gravelled space (the 'proto-forum'), preparation of the waterfront for landing flat-bottomed boats and for mooring others, and the construction of forty-one buildings on Ludgate Hill and Cornhill. Distinct variation in these processes in different areas of the town suggest a burgeoning social and functional separation of people with different relationships to the new town and motivations for moving there.

The processes affecting the archaeological remains discussed in this chapter were much more intrusive and depleting than those provided by the catastrophic destruction and abandonment of the Boudican fire; these earliest structures are more heavily truncated and affected by reclamation of materials and rebuilding. Nonetheless, the evidence that survives is representative of a significant period of development and, because of the extensive excavation undertaken, is an impressive collection of data.

Rubbish dumping and land levelling

Earlier land-clearance pits and ditches, quarry pits, and very large ditches were filled, rather quickly and with newly quarried material, in order to level the ground for the construction of new buildings and also in association with rubbish deposition, presumably more slowly (Figure 11). Make-up deposits for new roads, external deposition in yards, and the filling of new pits

and ditches comprise the remainder of the dataset. Evidence of this early deposition is present on at least forty sites (Table 11).

The rubbish dumping alongside Ludgate Hill Road 1 is unlikely to have derived entirely from nearby activities because relatively few buildings stood in those areas and, therefore, little material was deposited as make-ups for buildings or yard deposits. These dumps, however, contained substantial quantities of artefacts (see Chapter 5) and huge volumes of sediment, evidence of a truly immense campaign of rubbish deposition in the early years of the settlement (Hill and Rowsome 2011b).

There is no question that the majority of Group 2 deposition (which can be quantified through weight and volume of artefacts: see pages 109–10 and Tables 24 and 25) occurred west of the Walbrook, where few associated buildings have been excavated. We must question, then, where these deposits originated and why people felt it necessary to transport the sediment and waste away from the habitation areas. As the majority of the earliest structures are found on Cornhill, it is reasonable to suppose that rubbish dumped along Ludgate Hill Road 1 originated from Cornhill. Were people concerned that an accumulation of debris in yards or on the roads was insalubrious? Who made the decision? The intentional transportation of large amounts of waste to designated disposal areas is likely to have been either regulated and indicative of a type of zoning within the early settlement (perhaps unlikely), or demonstrates the different function of the land and notion of urbanism and economic basis of the population west of the Walbrook. The apparent sorting of rubbish, as shown by a significantly reduced amount of glass and coins found in these dumps compared to deposition east of the Walbrook (see page 109), could suggest that the small community on Ludgate Hill was engaged in collecting rubbish for recycling and scavenging. If so, this partly indigenous community was a marginal type of settlement perhaps not engaged in mercantile or production enterprises. Comparing the artefact assemblages from rubbish dumping to occupied buildings and their associated yards (see page 109) will show what kinds of waste people were transporting to Ludgate Hill and in Southwark and, perhaps, elucidate why they were doing it.

THE EARLY TOWN

Table 11. *Group 2 land levelling and rubbish dumping*

Site no.	Fill of Group 1	Building make-up	Road make-up	Pit and ditch fills	Yards	Rubbish dumping
Ludgate Hill						
1	X					X
3	X			X		X
5	X			X	X	X
13	X			X	X	
15	X					
16				X		X
19	X					
20	X					X
22	X	X	X	X	X	X
23	X			X		X
26		X			X	
29	X			X		X
Cornhill						
36	X	X				
38						X
41				X		
42	X					
44	X					
45				X		
46	X					
47		X		X	X	X
49	X	X	X	X	X	X
50		X		X	X	
51		X	X	X	X	
52	X			X		
53	X	X			X	
54	X					
55						X
56	X	X		X		X
63	X			X		
71	X	X		X		X
73	X			X		X
74	X					X
75				X		X
79		X		X		
81	X					
82	X			X		X
84	X					
South of the Thames						
100						X
101	X	X				
116				X		X
118			X	X		X

Table 12. *Evidence for and characteristics of Group 2 roads and other metalled spaces*

Road/area name	Site no.	Zone	Dimensions	Make-up	Metalling
Cornhill Road 4 conjectural	40, 79	Cornhill	–	–	–
Cornhill Road 5 conjectural	38	Cornhill	–	–	–
Cornhill Road 6 conjectural	40	Cornhill	–	–	–
Cornhill Road 7	67	Cornhill	At least 1.83 m wide (traced for 9.14 m)	–	gravel
Cornhill Road 8	51	Cornhill	c. 3–4.0 m wide (3 patches of metalling)	–	Compacted gravel 0.20–0.40 m thick
Proto-forum	67	Cornhill	Patches, c. 9.0 m east–west × 18.0 m north–south	–	Gravel 75.0–125 mm thick
Proto-forum	49	Cornhill	3.0 m east–west × 14.0 m north–south	Clay/silt	Gravel
Proto-forum	68	Cornhill	Sections, c. 25.0 m east–west × 37.0 m north–south	On natural brickearth	Gravel 100 mm thick
(forerunner to Ludgate Hill Road 6)	22	Ludgate Hill	Small, ephemeral track	None	None

Pitting, ditch-cutting, and quarrying

Continued quarrying, pitting, and ditch-cutting (Figure 12) was found at twenty-seven sites. The quarrying for clay, sand, and gravel was probably undertaken to gather building materials for constructing Group 2 buildings and roads. Significant gravel quarrying would have been necessary to cover the open area north of the crossroads (see pages 59–61 below). The brick-earth – the sandy, hard clay layer than overlies the gravels north of the Thames – was a useful material for constructing the underlying slabs of buildings that supported the walls and acted as a floor, as well as for sills for supporting timber walls and for hearth structures. Other pitting is likely to have been related to rubbish deposition and land clearance. Some pits underlie Group 2 structures while others are found in associated contemporaneous yards, and some occur at sites with no contemporaneous structural evidence. Three of the ditches are early, large ditches (Sites 41 and 45). The east–west ditch at Site 45 south of Cornhill Road 1 precedes a later road and buildings and may have been part of the ground preparation for those features. The two ditches at Site 41 underlay a later (probably) pre-Boudican structure and earthen-bank (livestock?) enclosure.

Roads and other metalled spaces

All evidence for new roads associated with the earliest settlement is on Cornhill between the northern side of Cornhill Road 1 and the waterfront. Three roads (Cornhill Road 4, Cornhill Road 5, and Cornhill Road 6) can be conjectured from the alignment of nearby buildings, and the remains of two north–south roads have been located through excavation (Cornhill Road 7 and Cornhill Road 8) (Figure 13, Table 12). Additionally, there is evidence that new drains and surface metalling were constructed to improve Ludgate Hill Road 1 (at Site 22) and the drainage of Cornhill Road 1 was enhanced with a new roadside ditch (at Site 51).

Cornhill Road 4 can be conjectured from the buildings (see Figures 25 and 26) too far south of Cornhill Road 1 to be directly related to it at Sites 47, 79, and 84. Similarly, the building north of Cornhill Road 1 at Site 38 could have required a path or road leading to it, and so Cornhill Road 5 has been conjectured there. Cornhill Road 6 is drawn in based on the alignments and locations of two buildings at Site 40, which have their long axes east–west, probably indicating that they faced onto a road to the west or east, and not to the north (i.e. not Cornhill Road 4). Cornhill Road 6 is placed to their west by mirroring the distance between the excavated roads

Cornhill Road 3 and Cornhill Road 8, which is not inconsistent with the evidence.

One of the two excavated roads is Cornhill Road 7, a gravel-metalled road at least 1.83 metres wide that ran perpendicularly north from Cornhill Road 1 east of the intersection of Cornhill Road 1 with Cornhill Road 3. To the west of Cornhill Road 7, north of the main crossroads, lay an open space, which was carefully deturfed and levelled before the deposition of clean gravel, covering an area measuring at least about 40 metres north–south by about 33 metres east–west (Marsden 1987: 21). This large metalled area was situated north of the T-junction formed by Cornhill Road 1 and Cornhill Road 3 and on the site of the later Flavian forum. The gravel metalling provided a dry, hard, level surface at the main crossroads.

A gravel-metalled road (Cornhill Road 8) about 3.0–4.0 metres wide extended south from Cornhill Road 1, again apparently perpendicular, at the easternmost point before the corner with Cornhill Road 2. The remains of Cornhill Road 8 were patchy, but its presence is supported by nearby parallel buildings, which were aligned to its west (see Figure 23). These roads are narrow in comparison to contemporaneous Colonia Claudia, where the side roads were about 5.92–8.88 metres wide and also in comparison to Silchester, where the roads averaged about 7.4 metres wide (Crummy 1985: 82; Fulford and Timby 2000).

These two (or possibly five) new roads provided access to properties situated away from the main early roads on Cornhill. Street-front property on Cornhill Road 1 and Cornhill Road 3 may have already been claimed by other people, or the occupants may have had other reasons for wishing to be set back from the main roads, such as increased safety and privacy, proximity (or ease of access) to the waterfront, increased yard space, or other, socially significant, reasons.

Buildings along Cornhill Roads 1 and 2 were positioned 1–16.0 metres from the edge of the road, buildings along Cornhill Road 8 about 1.3 metres, although exact distances are difficult to calculate because few buildings retain an intact front wall. The single structure in Southwark, which was aligned to Southwark Road 1, was

probably situated less than 3.0 metres away. Contrastingly, the structures along Ludgate Hill Road 1 were situated between 11.0 and 78.0 metres away from the road and those along the conjectured Cornhill Road 4 would have been around 25.0–40.0 metres away (although, again, lack of front walls and an excavated road surface may be obscuring the real distances). Proximity to Cornhill Road 1 held greater importance to those living on Cornhill, and the new roads may have been necessitated by an increase in the demand for street-front property, as opposed to all of the buildings being constructed after the imposition of a planned grid.

Waterfront development

Evidence for the earliest development of the northern waterfront is present west and east of the bridge at four sites⁸ (Figure 14). The port at Londinium may have begun to rival ports in Kent as one of the most important points of entry for people and goods from the Continent, and the high proportion of imported materials in early Londinium supports this notion (see page 146). People undoubtedly filled the waterfront area: traders or employees of merchants from the Continent, traders resident in Londinium, labourers on the boats, docks, and in the warehouses, fishermen, carters, craftsmen, and shopkeepers and innkeepers seeking stock and supplies.

People built terraces along sections of the Cornhill waterfront to create level surfaces above the water line, laid down an artificial chalk-and-gravel hardstanding to allow flat-bottomed boats to beach, and artificially straightened and revetted the shore with timber post-and-plank structures (in or after AD 52 in one place). Along with jetties to moor boats for loading and unloading, other timber and wattle structures probably represent parts of docks, landing stages, and other associated buildings or structures.

⁸ The features at Site 52 have been included in this chapter on the basis of their similarity to sites with greater stratigraphic complexity and recording available (e.g. Site 71). There is no reason, however, that the features at Site 52 might not be later pre-Boudican.

The revetment at Site 71 was constructed of radially cleft posts cut using a small axe with a rounded blade, a LPRIA type, in a method of wood preparation that had a long tradition, as well as of squared planks and beams, strongly associated with Roman innovation and construction methods (Brigham and Watson forthcoming; Goodburn et al. 2011). A wattle structure characteristic of indigenous construction technology south of the revetted waterfront could have been used as a fish weir; the lightness of the structure and its distance from the shore is similar to the later light post weir excavated in Upper Thames Street (Marsden 1994: 17). Undoubtedly, these scant remains are only a small part of what originally existed at this early date. Although pieces of wood are often waterlogged, the preservation has been greatly diminished by the constant dismantling and rebuilding of structures and the expansion of the Cornhill waterfront over hundreds of years (Watson et al. 2001; Milne 1985). The pre-Boudican waterfront lies north of all later waterfronts because natural silting and intentional deposition have built up the land, pushing the shore further and further south, with the result that the position of the pre-Boudican waterfront is found about 100 metres north of the modern waterfront.

The extant structures appear to have made two methods of boat-landing possible: mooring to a jetty and beaching a flat-bottomed boat. These different methods suggest different types of boats – with and without flat bottoms. The flat-bottomed vessels might have resembled the second-century Blackfriars sailing ship, which had flat keel planks instead of a more usual keel that would have required it to be moored in deeper water (Marsden 1994). Fishing vessels were almost certainly among these boats, as indicated by fish bones found in pre-Boudican contexts, including those of carp and cod, suggesting that fishing boats brought in the catch from the fresh water of the river and also the more saline water of the mouth of the estuary and the North Sea. The large proportion of imported ceramics and other objects, which increased during the pre-Boudican period, demonstrates that merchant vessels carrying oil, wine, and *garum* from Spain, *mortaria* and Samian vessels from

Gaul, and Mayen quernstones from Germany constituted the primary users of the port. Such vessels would have used the tides to move upstream to London (Marsden 1994: 24; Milne et al. 1983). There is no pre-Boudican evidence, such as might be provided by stamped tiles, for the presence of *classis Britannica*, the British fleet, although such tiles are found in contexts from later periods; nor is there any indication that barges were punted or towed from the shore, to cross the river (Marsden 1994: 17).

Despite extensive excavation, there have been no pre-Boudican waterfront structures located on the shore west of the Walbrook Stream, suggesting that all the activities related to transportation by boat (i.e. movements of people and goods) were centred entirely on Cornhill. The waterfront areas south of the Thames show some activity in the later pre-Boudican period, but erosion of the Southwark waterfront has greatly depleted whatever evidence might have been found (Watson et al. 2001; Yule 2005).

Early burials

Dating burials in the large extramural cemeteries primarily depends on artefacts. The main problems present in attempting to date burials to the Claudian and early Neronian periods are the common lack of grave goods altogether and the known presence of ‘heirloomed’ objects, providing *TPQs* that could be generations out of date. The Western Cemetery was in use in the first century, primarily for cremations, and there are also approximately seventy-five possible mid-first-century burials in the Eastern Cemetery (see Barber and Bowsher 2000; Bentley and Pritchard 1982). Associating those burials with the pre-Boudican period, let alone this highly selective set of features related to the earliest settlement, would be impossible.

Pre-Boudican burials can be more closely dated when they are overlain by later pre-Boudican or late Neronian/early Flavian structural evidence. Some burials within the later walls are part of the Northern Cemetery, while others are isolated, not associated with the larger

cemetery groups, such as those inhumations and cremations underneath and north of St Paul's Cathedral (RCHM 1928: 153–5; Shepherd 1988). Although, according to our understanding of Roman burial practices, adult burials were placed outside settlements, beyond a significant and meaningful boundary, such as a town wall (Hall 1996), these examples from the occupation areas demonstrate that the practice/taboo was not always obeyed, perhaps especially in a town with no wall, like early Londinium.

Nonetheless, as the practice was certainly the norm in other Roman towns, it is likely that these early burials within the later occupied area define the more restricted bounds of the early settlement when there was no wall or other substantial feature, such as a boundary ditch. The burials discussed in the next chapter in association with later pre-Boudican features (page 71) may well be contemporaneous with the burials discussed here, but cannot be shown to be as early because they were not built over in the pre-Boudican period. Those burials comprise an area of cremations north of the settlement at the crest of Cornhill, one or more cremations south of Ludgate Hill Road 1 within the area of the later walls, a possible pre-Flavian cremation on the Cornhill side of the Walbrook crossing, and the burial of a skull in a ditch on the southern eyot in Southwark.

The earlier pre-Boudican burials are primarily at the western and eastern ends of the northern part of the site (Figure 15). Some of the earliest buildings lie beyond the eastern burials (see Figure 24), and so may be later, if we can assume that the burials were restricted to areas beyond the settlement. The placements suggest that the early settlers did not plan for the town to grow to the size it was by AD 60/61. There are, unfortunately, no dendrochronologically dated buildings beyond the burials that might provide some idea of how quickly this expansion could have happened.

These burials may be those of the first deceased Londoners, buried within, perhaps, five years of arriving in the new settlement. At the eastern side of Cornhill, at Site 59 north of Cornhill Road 2, observations were made of cremations in oak-plank cists, which were sometimes

clamped with iron, and also of one cremation in a Spanish-amphora cist, one with a cover of thin purbeck 'marble', and one with a wooden cover in which a thin copper-sheet 'cross' was placed (Museum of London acc. No. 1925.45), all of which had been broken and disturbed by the construction of a series of later underground chambers (Marsden 1980: 24; Schofield and Maloney 1998). The Site 59 burials (for which only a brief report of observations made in 1925 exists) have been included in this chapter by association with the burials directly across the street at Site 54, which were overlain by a probable pre-Boudican building. At the latter site a double inhumation was placed in the large Group 1 ditch, south of the road. The truncated remains of the lower half of a male skeleton were found with the skull of a twelve-to-fourteen-year-old female placed over his pelvis. The position of the male was odd: because the truncation, which was mid-torso, removed his arms completely, his arms must have been positioned above the head or were removed prior to burial. The idea of removal is, perhaps, more likely because the lower parts of the legs, below the femurs, had been removed around the time of, or shortly after, burial (Birbeck and Schuster 2009: 14).⁹ The inclusion of the female skull raises the question whether the skull was a possession, like an ancestor relic, or if it was removed from the female's burial in order to be inhumed with the male.

At the western end of the settlement at Site 20, south of Ludgate Hill Road 1 on the highest part of the Ludgate Hill, another two individuals were interred in a large ditch perpendicular to and south of an early large ditch and the road. The ditch, in an area of rubbish dumping, contained the skeletons of two adult males flexed on their right sides, one with a dog across his knees, and was filled with a single deposit (Watson and Heard 2006: 19). Their location, at the crest of the hill, is similar to that of the Cornhill cremation cemetery (see page 71), and may

⁹ The notion suggested by Birbeck and Schuster (2009) that the bones bore evidence of exposure prior to burial, which might explain the removal of the bones at the same time by either humans or animals, cannot be accepted because the bones were articulated and so cannot have decomposed outside a matrix of sediment.

indicate a cultural preference for placing burials upon the highest ground, and not necessarily along the main roads outside the settlement. There are numerous examples of burials atop crests of hills in the LPRIA/early Roman period elsewhere in Britain (e.g. the Folly Lane enclosure and King Harry Lane cemetery at Verulamium both lie upon high ground). Burial with dogs is known in both Iron Age and later burials, and some people believe that dogs may have acted symbolically as guards or guides in the afterlife, or to prevent the deceased from rising (Smith 2006: 36–45). In an artefact-rich waste-disposal area slightly further away from Ludgate Hill Road 1 at Site 23, part of an articulated neonate skeleton was found, not apparently buried in a cut feature, although the burial cut required for an infant might be shallow, truncated, and not recognised archaeologically.

On Ludgate Hill, the area along Ludgate Hill Road 1 was intensively used for rubbish dumping (see page 49, above). The nearest inhabitants to the inhumations in the ditch and the neonate in the rubbish dumps lived in roundhouses across the street at Site 13. Certainly no formally defined cemetery area was reserved here, although several first- and second-century burials are known in the area of Paternoster Square, Warwick Square, Newgate Street, and St Martin's le Grand (Lambert 1915: 236; Marsden 1969: 2–7; RCHM 1928: 154; Shepherd 1988, Tylor 1884), within the later walls. The Western Cemetery is found much further west outside the later walls (Bentley and Pritchard 1982; Watson 2003).

On Cornhill, one small cremation burial in a jar at Site 75 in a rubbish dump beneath the make-up and levelling layer for a later building, which may have been intended as a foundation deposit, is associated either with early pre-Boudican occupation or with the construction of the later structure. If the earliest inhabitants were excluding burials from settlement areas, this burial would indicate that the earliest town boundary did not extend immediately north of Cornhill Road 1.

An alternative model of settlement boundaries, as has been discussed in relation to the roadside settlement at Shiptonthorpe (Millett 2006), may explain this

distribution. It is possible that the concept of a single urban nucleus does not apply to early Londinium, but, rather, that the settlement comprised separate, self-contained units of settlement. The burials at Sites 20 and 23, for example, might have been considered outside the unit of settlement across the street at Site 13. The buildings at the eastern end of Cornhill Road 2, similarly, might have been conceived of as a separate settlement area and so the burials further south-west along that road were outside their occupied area. Such a notion of space and boundaries is not common in urban contexts, and may indicate that some people in early Londinium were satisfied with the creation of a roadside settlement, not an urban centre. If this was the case, it seems to apply to the peripheral eastern and western ends of the settlement, which is further evidence that the earliest settlement in Londinium comprised separate communities (see also page 109).

Buildings

The forty-one identified buildings and structures from Group 2 were found on nineteen excavation sites (Figure 16). All of the buildings were constructed of wood, mud brick, and/or wattle and daub,¹⁰ most constructed atop a layer of sediment deposited to level the land; they are illustrated in Figures 16–29. The database for this project includes detailed qualitative data of these buildings, some of which is included in Figure 29. This section is limited to the analysis and interpretation of these structures as they relate to our understanding of the early settlement in terms of their relationships to Group 1 features, their alignments to the roads, their location within the town, and the significance of different construction techniques and architectural features.

Construction of the earliest buildings was hindered by problems presented by earlier intrusive features, cut in association with land clearance, drainage, and quarrying

¹⁰ There is, however, one possible masonry building at Site 37, but none of its superstructure survives.

(see pages 35–43).¹¹ Pits and ditches were filled before the construction of buildings on several sites, and it seems that most people did not let the presence of these large pits and ditches affect where they placed their buildings and, instead, quarried and dumped sediment to level the land by filling in the intrusions, in addition to the make-ups and floor slabs that they deposited to construct their buildings. Where it has been possible to illustrate the relationship between the earliest structures and the underlying intrusive features, they are included on plans.

All the buildings between the northern side of Cornhill Road 1 and the waterfront shared the same north-east–south-west (15°) alignment (Figure 16) except Site 50 Building 1 (Figure 22) and Site 51 Building 24 phase 1 (Figure 23), which were aligned closely to true north.¹² The 15-degree alignments are likely to have been determined by the planning and construction of new roads in an orthogonal plan, as was common during the process of laying out a grid first and then building orthogonally aligned structures later in Romano-Gallic towns (Drinkwater 1985). The three buildings near Cornhill Road 2 (Figure 24), which were built on a north-west–south-east alignment (approximately –35°), were not on precisely the same alignment as later buildings, but were approximately parallel to the earlier large ditch north of the road.

On Ludgate Hill, rectilinear building Site 22 Building 1 (Figure 21) (at –54°) was aligned halfway between the Group 1 ditches (–45°) and Ludgate Hill Road 1 (–67°), adjacent to a diagonal track. Rectilinear building Site 17 Building 1 (Figures 10 and 16) was aligned to the road, but about 78.0 metres north of it. A ditch associated with round building Site 13 Building A1 (Figure 18) was also not perpendicular to the road.

¹¹ This analysis can only be certain at sites where all features have been illustrated. Almost certainly there are other examples that cannot be described here.

¹² Site 50 Building 1 pre-dated the other Group 2 buildings on that site and was an area of intense activity in the pre-Boudican period. Because there is no stratigraphic relationship with Cornhill Road 1, the suggestion that Site 50 Building 1 pre-dates the roads because of its early date and its alignment (Williams forthcoming) is not followed here, although there is no satisfying explanation why Site 50 Building 1 and Site 51 Building 24-Phase 1 were aligned to true north.

The predominance of the 15-degree alignment on the Cornhill settlement between Cornhill Road 1 and the waterfront and lack of a common alignment on Ludgate Hill suggests that the orthogonal planning undertaken applied only to the main Cornhill area. That later buildings along Cornhill Road 2 have a slightly different alignment (see Chapter 4) could suggest a change in the alignment of the road or it could be evidence that the people living in this area, like those along Ludgate Hill Road 1, did not inhabit a planned settlement, had a different relationship to the infrastructure, and perhaps to the authority and social structure as well. These people lived beyond the burial area along Cornhill Road 2 (page 54), beyond the initial area of settlement. The character of this area was different from further south and west along Cornhill Road 1, and should be considered separately as perhaps representing a different social group.

The majority of the early structures were built on Cornhill, between the northern side of Cornhill Road 1 and the waterfront, probably spreading down Cornhill Road 2 later (Figure 24). The concentration of excavated buildings along the eastern section of Cornhill Road 1 (Figures 22 and 23) is a result of more extensive excavation in that area, and it is likely that the inhabitants constructed buildings along the whole length of Cornhill Road 1. The inhabitants also began to build south of Cornhill Road 1, where Cornhill Road 4 and Cornhill Road 6 have been conjectured (Figure 26) and along the waterfront, especially west of the bridge (Figures 27 and 28). South of the Thames there is only the most ephemeral evidence for an early structure, observed in section at Site 101, and it is very unlikely to have been the location of any substantial occupation contemporaneous with the early development north of the Thames (if, as is hypothesised here, multiple phases of construction in the pre-Boudican period indicate a longer occupation period).

Where the excavated evidence is best, it appears that the Cornhill buildings were all constructed relatively close to the nearest road and closely spaced to one another. On Ludgate Hill, however, the buildings are widely spaced, set back from the main road, and not

necessarily aligned to it. Construction along the waterfront west of the Walbrook (Figure 20) was probably not related to Ludgate Hill Road 1, as there is no evidence for roads leading south from Ludgate Hill Road 1 to the waterfront.

The intensive rubbish dumping along the sides of Ludgate Hill Road 1 also strongly suggests that it was not considered part of the settlement and was, instead, reserved for waste disposal and burial. The type of deposition might explain why the occupants set their buildings back from the roads and suggests that they had a different physical and social relationship to the early settlement than the inhabitants of Cornhill. Similarly, the people who lived along Cornhill Road 2, outside the core area, beyond the earlier burials, were unlikely to have had the same relationship to the early settlement as those people living and working in the buildings positioned along Cornhill Road 1.

Construction, plans, and features

The earliest buildings were modest in size and in use for a short period of time. Yet it is likely that they were more than temporary sheds and protective structures used during the construction of the later buildings found in the same areas. They were most often dismantled and then stratigraphically separated from the later buildings by widespread levelling layers and so could not have been even partly contemporaneous with later buildings on the same sites.

Timber framing was the most sophisticated method of construction of wooden structures from early Roman London, where squared timbers were carefully prepared and mortised together by a skilled carpenter using specialised tools (Goodburn 1991). Timbers square in cross-section are a key feature of Roman building technology tied to the production of standardised timbers and rectilinear structures. Timber framing is represented archaeologically either by slots cut for, or raised brickearth sills built for, timber baseplates that would have supported studs, often infilled with wattle-and-daub panels (Goodburn et al. 2011; Perring et al. 1991). Twenty-one

buildings probably constructed with timber framing have been found: far north of and aligned to Ludgate Hill Road 1, on the Ludgate waterfront, on Cornhill aligned to Cornhill Road 1 in no fewer than nine buildings, two buildings aligned to Cornhill Road 2, three buildings by Cornhill Road 4 (Site 79, not illustrated), and one building aligned to Cornhill Road 5.

The majority of non-timber-framed buildings were constructed of posts set in a trench, packed with clay or gravel. Five post-in-trench buildings have been found, two aligned to Cornhill Road 1, one to Cornhill Road 4, and two to Cornhill Road 6. The post-in-trench method, where posts placed in a trench were connected by wattle and filled with daub, differs from timber framing in that it does not require mortising into a baseplate, precise right angles, or specialised skills and tools. Also, few of the properly timber-framed buildings have interior walls of the same construction; the interior walls were more usually made of wattle-and-daub or post-and-plank construction.

There were other types of construction as well, perhaps indicating higher-status buildings. One building (Site 51 Building 24 phase 1, one of the north-aligned buildings, Figure 23) had a gravel foundation laid to carry a mud-brick wall, and another (Site 37, Figure 27) could have been constructed of masonry because the substantial substructure of posts and piles constructed to consolidate the ground is impressive; but the superstructure has not survived.

The buildings show no patterns of construction that would make it possible to suggest similarity to known military sites; for example, there is no evidence for palisade-type walls or mortar plinths as have been found in association with the fortress phase at Camulodunum (Crummy 1984, 1988). The post-in-trench buildings were not similar to the contemporaneous military buildings at Kingsholm, Glevum (Hurst 1988); the Londinium buildings have smaller foundations and dimensions. Timber-framed interior walls filled with wattle and daub between the uprights, absent from the earliest buildings in Londinium, were common in the fortress buildings at Camulodunum (Webster 1988: 34).

Some of the buildings, however, were products of completely different traditions and skill-sets (at Sites 5, 13 and 22): round buildings (Figures 18 and 21) constructed of post-and-stake¹³ walls woven with wattle and packed with daub as well as one rectilinear building constructed of earth-fast round posts at Site 22 (Figure 21). Building wooden houses with main load-bearing posts set directly into the ground requires replacement every decade or so (Perring 2005: 21). Earth-fast posts were used for internal divisions within timber-framed buildings, but their use in outer walls is uncommon (Goodburn et al. 2011).

The round buildings, all found near Ludgate Hill Road 1, were relatively small, only 5.0–6.0 metres in diameter. The two round buildings (dating to c. 50 BC–AD 50) found within the early enclosure ditch on the Thurnam Roman Villa site in Kent were both more than 10 metres in diameter (Millett 2007b: 154, fig. 5.12) and the round buildings B1 and B3B–C at the Marlowe Car Park site in Canterbury measured 7.8 and 8.5–9.0 metres in diameter, respectively (Blockley et al. 1995: 34–6). EIA round buildings averaged about 6.0 metres, but larger buildings of around 9.0 metres were more common by the MIA and complex, larger examples are known, for example 14.0 metres with an entrance porch, as at Little Woodbury, and the structure 15.0 metres in diameter at Cow Down in Wiltshire (Cunliffe 1991: 269–71). The stake-built roundhouse Site 5 Building 1 is similar to the MIA, less substantial buildings at Danebury, which were constructed with small posts and wattle and daub and measured about 6.0–9.0 metres in diameter (Cunliffe 1995), whereas larger ring-groove houses represented by circular trenches measuring 10.0–14.0 metres in diameter, as at Little Waltham in Essex, were more common in southern Britain (Cunliffe 1991). The Ludgate buildings are also similar in construction to northern Gallic La Tène rectilinear structures, which were also post-built, in contrast to the southern Gallic use of unfired bricks, as at Nîmes or

Narbonne (Woolf 1998: 123). It is possible that smaller buildings might have been ancillary structures, like the later round buildings at Site 13 (see Chapter 4).

Round houses continued to be built and used into at least the Flavian period in Londinium (as at another west of Walbrook site, 10 Gresham Street: see Casson et al. forthcoming)¹⁴ and are not indicative of a time period as much as of continued traditions, both of the skills required to build such a structure and the mode of life reflected in the choice. It is unlikely that they would have been built or inhabited by people who did not build and use round houses before their move to Londinium and so it is probably possible to exclude settlers from Roman towns on the Continent as their possible inhabitants.

The presence of roof tiles in floor layers of the rectilinear timber building and adjacent yard area at Site 22 and with the waterfront buildings at Site 26 suggests the possibility that buildings on Ludgate Hill may have incorporated some tiles in their roofs or reused tiles for other purposes. However, no other tile type, such as those for internal heating or architectural decoration, have been found. The high density of such tiles, as well as the presence of *opus spicatum*, *tesserae*, purbeck marble inlay, keyed ceramic walling, and a paving stone in the nearby Ludgate Hill Road 1 rubbish dumps (at Sites 3, 20, 21, and 23) suggests that roof tiles and other embellishments may have existed elsewhere (from wherever the rubbish deposits derived), although they may have been only deposited on Ludgate Hill. Contrastingly, on Cornhill, *tegulae* and *imbrices* have been found in construction-related contexts (at Sites 47, 51, 56, and 79) and yard deposits (at Sites 49 and 51). Within three buildings (at Sites 47, 50, and 56) roof tiles were found in occupation and interior hearth deposits. They have also been found in dumps in external areas not associated with nearby structures (at Sites 55, 72, 73, and 75) and with dumping in association with the waterfront revetment at Site 71.

¹³ 'Post' refers to wooden uprights inserted into a cut in the ground, represented by 'postholes', and 'stake' refers to wooden uprights driven into the ground, represented by 'stakeholes' (see Perring et al. 1991: 71).

¹⁴ NB: Some authors (e.g. Perring 2011) and a page on the Museum of London website (www.museumoflondon.org.uk/learning/features_facts/digging/invasion/s2.html) suggest that the Gresham Street roundhouses are pre-Boudican, but the forthcoming site report is explicit in dating them to a later period.

Clearly tiles were being used more frequently on Cornhill than Ludgate Hill, and the possibility that roofs there were tiled is greater. Tiled roofs were not common in contemporary Colonia Claudia (Crummy 1988: 35), however, and we must assume that thatch or wooden shingles were used where tiles have not been found.

Higher-status buildings with hypocausts are suggested by the presence of flue tiles and wall/flooring tiles (e.g. *tegula mammata*) from yard deposits associated with structures south of Cornhill Road 1 (at Site 51) and from rubbish dumps not associated with structures north of Cornhill Road 1 (at Site 75) and south-east of Cornhill Road 2 (at Site 82). No wall plaster or other internal decoration was recorded, but keyed ceramic walling from a yard deposit associated with a building north of Cornhill Road 1 (at Site 49) is evidence of a more modest kind of interior decoration. A piece of stone moulding, although what kind is uncertain, from the floor of a building south of Cornhill Road 1 (at Site 50) and a flagstone of purbeck marble from a yard associated with structures south of Cornhill Road 1 (at Site 51) are suggestive of possible masonry architecture or architectural details in the Cornhill area. One building on Cornhill was equipped with an integrated tile-lined drain (Site 51 Building 44, Figure 23), which would have been a more sophisticated solution than other structures associated with external ditches and drains (e.g. Site 13 Building A1, Figure 18) designed to carry waste and water towards roadside and other ditches, gullies, and drains.

EVIDENCE OF PLANNING

The orthogonal layout of the two excavated side roads perpendicular to Cornhill Road 1 may suggest development within an overall planned settlement. Also, the setting aside of an open gravelled area at the main crossroads suggests the intention to prevent the space from being built upon. It was not just open space, it was a major undertaking to quarry and deposit the quantity of gravel required, 0.10 metres thick over an area that measured at least 40.0 by 33.0 metres and could have measured as much as about 40.0 by 70.0 metres – which would

have required 132.0–280.0 cubic metres of gravel. Unfortunately, the earliest buildings associated with the open space and Cornhill Road 7 were ephemeral post-built timber structures and offer little clue to its function.

The main crossroads of the settlement lay at the intersection between Cornhill Road 1 and Cornhill Road 3, centrally placed on Cornhill, and connecting directly to the bridge as well as Watling Street both in Southwark and on Ludgate Hill. At such a T-shaped crossroads one might expect a *principia* in a Roman fort, with a somewhat symmetrical arrangement to all four sides (as at Camulodunum (Crummy 1982, 1988) or Caerleon (Zienkiewica 1986)). The main crossroads and forum of a town, however, need not be, as at Calleva (Boon 1974; Fulford and Timby 2000) or Durovernum (Blockley et al. 1995; Millett 2007b), in the approximate centre of a settlement. Fora were planned at other significant points: in pre-Boudican Verulamium the LPRIA–pre-Boudican Central Enclosure and later forum area were located at a T-shaped crossroads (Niblett 2001) and in Samarobriua the forum was built in the original south-eastern part of the town grid, near the diagonal Via Agrippa (Bayard and Massy 1983: 75). There is no contemporaneous construction to the north of the gravelled area in Londinium; the earliest settlement on Cornhill lay between the northern side of Cornhill Road 1 and the Thames. The focus was not on a central space with structures around focused inwards, but rather on a road, Cornhill Road 1, and its connection to the waterfront.

Labelling the space as a ‘forum’ or ‘*principia*’ would not augment the interpretation of the function of the space. Certainly, this was a large, flat, well-surfaced, open, and yet structured, space at a significant crossroads with small, ephemeral buildings to its east, not apparently directly related to it – a structural description that does not fit the traditional understanding of either a forum/basilica complex or a *principia*. At some sites the difference between a *principia* and a forum is somewhat blurred, as at the military-built civilian town of Waldgirmes (von Schnurbein 2003) as well as in towns that originated as forts where ideas about the civilian and military aspects of town construction came together, as

Table 13. *Hypothetical calculation of man-hours to create the open gravelled area*

Task	Estimated time (minutes)	For 2,200 barrows (hours)	For 4,666 barrows (hours)
Quarry (0.27 hr/barrow) and load (0.12 hr/barrow) 1 barrow (0.06 m ³) of sediment	23.4	858	1819.7
Transport 1 barrow (0.06 m ³) from waterfront 240 m. at 5% incline up ER3 moving at 5 km/hr	2.88	105.6	224
Empty barrow, spread gravel (0.075 hr/barrow),	4.5	165	350
Total	30.78	1,128.6	2,393

at Colonia Claudia (Hurst 2000: 114). The forum at Calvea had a pre-Flavian timber courtyard building (Fulford and Timby 2000: 36) (which are compared to later pre-Boudican buildings associated with this space: see Chapter 4), but no such buildings existed at the outset of planning the open square in Londinium. Like contemporaneous Durovernum and Calvea, however, the space seems to have been separate, reserved, and prepared for the purpose of being an open area. Besides the T-shaped crossroads, there was no pre-existing feature to confer significance to the location, as in the case of the LPRIA Central Enclosure at Verulamium. It may be compared to the Neronian forum at Samarobriua, which was not a traditional layout but rather consisted of an open space with small wood and cob buildings, which were demolished around AD 60–80 for the new, more monumental, forum (Bayard and Massy 1983: 74–5). Similarly, the buildings standing in Londinium at the time of the Boudican fire (see pages 77, 89–91) were demolished for a major rebuilding in the Flavian period that monumentalised the area with a basilica and other structures and represents the first real forum of Roman London (Philp et al. 1977; Marsden 1987).

Because this earlier gravelled space would have required significant labour to quarry the material, transport it to the site, deturf and level the ground, and spread out the gravel, it must have been the result of an effort by a team of labourers. Estimating how many man-hours such work would be is tricky without knowing whether buckets, barrows, or horse-drawn carts were used and where the quarries were in relation to the deposition site. Nonetheless, by using the *Estimator's Handbook*

produced for the *Building Trades Journal* (Waterfield and King 1978), one can estimate about 330–700 hours (at 0.25 hours per m²) to cut, lift, and stack the turf by hand (assuming there were no trees to clear) of an area measuring 1,320–2,800 square metres (c. 40 × 33–70 m). The same guide produces an estimate of 594–1,260 hours (4.50 hours per m³) to quarry the necessary 132–280 cubic metres of gravel, excavating pits not more than 1.50 metres deep. To load this sediment (not onto lorries as specified in the *Handbook*, probably to carts or into buckets, but the principle is presumably the same), the estimate is 264–560 hours (2.0 hours per m³), and to spread and level it, 165–350 hours (1.25 hours per m³). Thus the overall estimate is 1,353–2,870 hours, or about sixteen to thirty-six eight-hour days for ten labourers.

As cubic metres of sediment are difficult to picture, to visualise the volume of gravel one could apply a calculation that has been used for the volume of an average modern wheelbarrow in relation to calculating excavated volumes of sediment on an archaeological site: 0.06 cubic metres (Millett 2006: 75). Of course, we do not know what sorts of wheeled carts or buckets they were using to transport quarried gravel, but such a calculation helps us to conceive of the volumes discussed using a measure an archaeologist can understand. The lower end of the estimated gravel area would require 2,200 wheelbarrows and the upper estimate 4,666. A completely hypothetical man-hour estimate based on modern wheelbarrows and the time required by volume provided in the *Estimator's Handbook* would be 1,128–2,393 hours for the quarrying, transport, and spreading (Table 13). This estimate might be somewhat better than the last as it includes time for

transporting the gravel from a hypothetical quarrying area. Added to the roughly 330–700 hours to deturf the site, the total would be 1,458–3,093 hours, or the work of ten labourers for between eighteen and thirty-eight eight-hour days. The organisation of labour on this scale is likely to have been overseen by a powerful individual or group.

Although the function of the space cannot be proven, its location is similar to that of a *principia* or a forum, and the large-scale deposition of such a gravel surface could be compared to other, perhaps more impressive, types of urban monumentalisation, such as the contemporaneous stone-built fora found in Gaul at Augustodunum (Autun) and Colonia Nemausa (Nîmes) (Woolf 1998: 113). The space was also overlain by the later monumental forum in the same location, and so probably can be functionally related to that later structured space. It is a problematic identification, but this space will hereafter be referred to as the ‘proto-forum’ for ease of reference (after Marsden 1987).

Like fora and other forms of planning and monumentalisation, grid plans were important to the development of contemporaneous towns. At Colonia Claudia, when they founded the *colonia*, they adapted the existing fortress by filling in defensive ditches and establishing a new section of settlement on a grid plan (Crummy 1985: 80, 1988: 42–3). As at Londinium, the execution of this planned development occurred over a number of years. Grid plans were used among the newly established, earlier, Augustan settlements in Gaul, such as those at Augustodunum and Nîmes, where privileged indigenous communities demonstrated their power through urban planning and monumentalisation (Woolf 1998: 113). *Civitas* capitals, by contrast, in Gaul were not reorganised with grid plans until later (c. AD 30), and some in the north of Gaul lacked grid plans until the mid-first century, such as Trier or Samarobriua, most likely linked to the end of military occupation (Bayard and Massy 1983; Woolf 1998: 119). Other towns, such as the Augustan(?) Saint-Bertrand-de-Comminges (Lugdunum) adapted layout of *insulae*, not on a grid plan, to the pre-existing communication routes (Esmond Cleary 2008: 24–5).

The possible street grid evident in association with the earliest settlement on Cornhill is particularly interesting in that it was, in part, not respected in association with later pre-Boudican development (Chapter 4). If this was grid planning, the original design did not endure. One of the roads (Cornhill Road 8) was encroached upon and perhaps blocked by buildings for a period of time, and one was destroyed (Cornhill Road 7) and overlain by large buildings. Also, one of the other excavated north–south Cornhill roads that form the street grid, associated with later pre-Boudican construction (Cornhill Road 9, see Figure 33), necessitated the destruction of an earlier pre-Boudican building before it could be laid out. The decisions being made were clearly dynamic and took place over a period of time. The changes in the plan of the streets may indicate changes in those people making the planning decisions, or a lack of control over the enforcement of the plan (see page 93 for continued discussion).

THE OVERALL PICTURE

The structure of the earliest settlement shows evidence of orthogonal planning on Cornhill and diverse methods of building construction, including both indigenous and imported methods, both primarily using local materials. The differences in the relationships between structures and roads suggests that there could have been three separate communities of people: those on Ludgate Hill, those on Cornhill between the northern side of Cornhill Road 1 and the waterfront, and those living beyond the burial area along Cornhill Road 2. Because it would seem that not all available land was used and yet people built their structures in different areas, it is likely that some people actively chose to live outside the main grid-planned area, or that they were unable legally or socially to claim land in the central area. People who lived beyond cemeteries in areas used for intensive rubbish dumping are unlikely to have chosen the location for the fresh air and comfort. Probably the people living and working along Ludgate Hill Road 1 were outsiders in some sense. That some of those living near Ludgate Hill Road 1 were

indigenous people is supported by the round buildings they chose to construct. That they had a different relationship to the planning of the settlement is evident in the non-orthogonal alignments of their buildings, similar to those buildings beyond the burials along Cornhill Road 2.

The creation of a densely settled area where nearly all the buildings and roads share the same alignment, on Cornhill, emulates Continental towns and Roman military installations in Britain. It is likely that an individual or small group held significant resources, power, and authority to plan and create the proto-forum area and enforce the road- and building-construction rules. The question remains, however: who were the earliest settlers? Strong possibilities for the Cornhill core population include immigrants from the Continent recreating the familiar (Creighton 2006) or the indigenous elite adopting characteristics of the urban form to forge and substantiate their relationship to imperial authority (Woolf 1998, 2000). Although the question can almost certainly not be answered definitively without the discovery of a Claudian-dated document of some kind, two significantly later inscriptions offer possible hints. Local ties to the south of England are supported by the wooden tablet from the Walbrook Valley dated 14 March 118 AD (RIB 2443.19; Collingwood and Wright 1992: 20–1) that records the sale of a landholding in the *civitas Cantiacorum* and may be evidence that inhabitants of Londinium were also landholders in Kent, and suggests that Londinium lay within the administrative boundaries and control of the *civitas*, as was suggested also by Ptolemy (*Geography* 2.3.13; see also Millett 1996: 35).

The inhumation burial of a female individual provides possible evidence that some British elite were resident in Londinium south of Site 100 at Harper Road (impossible to date as pre-Boudican, and so not assigned a site number here: see Cotton 2008; Cowan et al. 2009: 40–1). The body of this individual, who was at least forty-five years of age, was perhaps encased in a wooden coffin, represented archaeologically by four or five iron nails. The burial offerings included a collared flagon of pre-Flavian date, which probably originally contained wine or some other liquid, the foreleg of a pig, parts of

three Claudian/Neronian Samian plates, a copper-alloy torc, and a copper-alloy mirror. This burial was extremely isolated if it is, indeed, pre-Boudican. The torc (which was not worn, but rather placed at the feet) is a possible indication of the ethnicity of the individual as of indigenous British background, but its peacock-feather decoration is highly classicising and the inclusion of Samian dishes as meaningful and symbolic objects forming part of the burial assemblage, and perhaps representative of a ritual ‘feast’, could both indicate that the deceased was a local elite figure who occupied a place of prominence within the new town. The grave goods perhaps functioned to reflect and create the social status of the family and their place in the local hierarchy. Indeed, the isolation of the burial could indicate that the walk to the site was a meaningful formal procession to a symbolic location, perhaps an enclosure, and included many mourners, which would be further evidence of the social status of the family (Cotton 2008). It is possible that a large proportion of the population comprised indigenous people pulling themselves out of a kinship network, relocating to the urban centre, and pursuing new ambitions in a new place. A similar pattern of ethnic identity reinvention can be witnessed in burial assemblages in the cemetery at King Harry Lane outside Verulamium (Millett 2000; Stead and Rigby 1989).

Another document, from the second century, can be used to address the question of ethnicity: the high-quality Tabard Square stone inscription. Although this object and the Walbrook tablet are separated from the period under discussion by more than fifty years they are the only documentary evidence excavated in London to address this issue. The Tabard Square inscription, which is probably of Antonine date and can be translated as ‘To the *numina* of the Augusti and the god Mars Camulus, Tiberinius Celerianus, Bellovaci, *moritix* [?shipper/exporter] of London [?London things], erected this’, is evidence of Gallic inhabitants (Corcoran et al. 2002). It was erected by a Roman citizen, as shown by his name, a devotee of Mars Camulus, a deity popular in northern Gaul and Germany between the Seine and the Rhine, and associated with Durocortorum (Reims) in particular

(Dondin-Payre and Lorient 2008: 138–9). The name Tiberinius is also common in northern Gaul and the enigmatic part of the inscription ‘C BELL’ could be a shortening of ‘*civis Bellovacus*’, citizens of modern Beauvais west of Reims, the *civitas* capital of the Bellovaci tribe, who refers to himself as a ‘*moritix*’ (a Celtic word, perhaps a professional title meaning ‘shipper overseas’) of the Londoners (or possibly ‘of London things’), suggesting that there could have been a significant and powerful population of Gallic traders in London in the second century (Corcoran et al. 2002; Dondin-Payre and Lorient 2008: 139–42, 144; Millett 2005: 51).

Abandoning ancestral sites and founding new towns from nothing, spending significant sums on resources, is well represented in Roman Gaul (Woolf 1998: 124, 2000). Gallo-Roman settlements often moved, probably at the instigation of the local ruling elite, for the purpose of founding a new town, to fit into road networks and wider patterns, between about 70 BC and AD 50, demonstrating that Gallo-Roman elites were committed to change, as is so well exemplified by Augustodunum and other Augustan ‘new towns’ (Woolf 1998: 116, 2000: 119). Roman towns in Gaul were small pockets of ‘Romanness’ in a world of villages, and it was the Gallic elite who probably made the decisions to urbanise. Urbanism began as a product of Roman contact, and the most clear expressions of urbanism evident in early Roman London are the street grid, closely spaced buildings, proto-forum open area, and zoning of burials along roads outside the settlement. Those people who were the primary instigators of the early Cornhill core development were demonstrating a commitment to urbanisation, which could represent new motivations and aspirations in this population. If the people settling London were previously town-dwellers, then they could have been the same people who put on the charade of the city in Gaul. It is equally likely that the original Cornhill core community moved to the new site at Londinium from rural areas in order to establish an urban centre where they could install themselves as the local elite.

Whoever the new settlers were, they did not leave evidence of typical urban forms of social display and civic munificence, such as might be expected in a Mediterranean city or elite new town in Roman Gaul: mosaics, marbles, basilica, baths, and forum. The earliest pre-Boudican buildings are fairly undifferentiated in size, similar to LPRIA Britain and Gaul, which is in direct contrast to Gallo-Roman towns where status and wealth were manifested through competitive display and the aristocratic *domus* (Woolf 1998: 124). In central and eastern Gaul the elites had internalised the desire to urbanise much more fully than in the north-west; their cultural ideals were demonstrated by more elaborate and numerous monumentalised civic centres, despite the two areas of Gaul having similar administrations. The absence of these features could mean that monumental architecture and the related system of elite erudition, or at least the physical expressions of it, were unimportant (or unknown) to the early society of Roman London (Woolf 1998: 135).

That there was a central authority influencing, overseeing, or directing the planning of the Cornhill core settlement is not only demonstrable through the orthogonal arrangement of the streets and proto-forum area and the proximity and alignment of buildings to the roads, it is also evident in the seemingly systematised removal of rubbish to dumps west of the Walbrook and in Southwark, as well as to build up a bank for a waterfront revetment. The early rubbish dumping along Ludgate Hill Road 1 was extensive by any measure, and the buildings known in the area would be unlikely to account for such vast quantities of debris.

To truly understand this earliest settlement, and to consider to what degree this central authority was collaborative or coercive, it is necessary to consider the later pre-Boudican development (Chapter 4) and to combine this structural assessment with the artefact assemblages. The evidence for daily life and aspects of ethnicity, status, and other identity markers lies in the material culture (Chapter 5).

THE TOWN IN AD 60/61

INTRODUCTION

There have been many attempts to describe Londinium in AD 60/61 on the basis of archaeological evidence, which is often well preserved, well recorded, and closely dated (e.g. Drummond-Murray et al. 2002; Dunning 1945; Hill and Rowsome 2011a; Lambert 1921; Perring 1991; Rowsome 1998, 2008; Williams 1990, forthcoming). Despite the wealth of evidence, however, the maps of Londinium in AD 60/61 produced to date show only roads and dots or shaded areas indicating Boudican fire debris (Figure 30), occupation, and burials (Drummond-Murray et al. 2002: 47, fig. 40; Marsden 1980: 18, 30; Merrifield 1965: 90, fig. 9, 91, fig. 10; Perring 1991: 7, fig. 3, 11, fig. 5; Rowsome 2008: 28, fig. 1.3.3). The lack of synthesis of the available evidence hinders discussions of the early town; comprehensively drawing together the evidence creates a framework to which further interpretations of new sites may be added and compared. This final phase of pre-Boudican development is represented in this project by Group 3 contexts (Figure 31) and a structured system for describing, illustrating, and analysing the contexts and features makes robust interpretations possible. The evidence provides a rare opportunity: to describe, analyse, and interpret a Roman town at a specific moment in time, the way that people in the past experienced it.

This chapter presents the evidence for dating the sites discussed here (c. AD 52–61) as well as the effect of the Boudican Revolt on the archaeology of London. These sections are followed by the detailed discussion of the features across the settlement, including the 114 buildings standing at the time of the Boudican fire. The structure of the settlement (planning, patterns of urban development, and estimation of the occupied area and population) is presented before the final discussion.

DATING THE LATER PRE-BOUDICAN EVIDENCE

The datable structures discussed in this chapter – those post-dating earlier structures discussed in Chapter 3 and/or those probably standing in AD 60/61 – were constructed in or after late AD 52 up to AD 61. Dendrochronological evidence shows that some buildings standing at the time of the fire were built only a year or two beforehand,¹ while other buildings were already eight or nine years old.² The earliest Cornhill waterfront activities discussed in this group date to the winter of AD 54/55 or later and others to the winter of AD 55/56³ or later. The Boudican fire-destruction debris provides a contemporaneous horizon across much of the settlement that can reasonably (if not unproblematically) be dated with a historical source, an archaeological rarity shared by other catastrophically destroyed Roman sites, such as those surrounding Mount Vesuvius. Sites with destruction debris have a probable *terminus ante quem* of AD 60/61, structures lacking destruction debris date to around AD 51–70, and areas of deposition on open land with no structural remains could conceivably date to anywhere in the range of AD 47–70. Many of the buildings lacking fire debris are located adjacent to structures that burnt in the fire and, as it is unlikely that they could have escaped destruction, they must have been heavily cleared during rebuilding and still pre-date AD 60/61. Most others that

¹ Dendrochronological date from piles supporting Site 5 Building 2 showed it to be no earlier than the autumn of AD 59 through the spring of AD 60 (Hill and Woodger 1999: 8, 11).

² Dendrochronological date from revetment S4 at Site 22 showed that Group 2 rubbish dumping along Ludgate Hill Road 1 was first superseded by Group 3 construction some time during or after the winter of AD 52/53 (Tyers 2011).

³ Two identical dendrochronological dates from Structure 3 and one from the revetment at Site 37 (Swift 2008).

show no evidence of nearby destruction were, nonetheless, dismantled and replaced in the period around AD 50–70, which is a strong indication that their period of disuse coincided with that of so many other structures, in the Boudican fire of AD 60/61. On this basis, most of the buildings⁴ discussed in this chapter can be shown to have been partly or wholly contemporaneous, particularly around AD 60/61.

The sites with no fire debris included here either contain artefact assemblages dating to the Claudian and early Neronian periods and/or are overlain by strata with assemblages dating to the late Neronian period and later. These sites have been included here as probable pre-Boudican sites that improve the picture of the early settlement. While they could represent earlier activity, they are included here as there would be no method of demonstrating that they were earlier and, indeed, because they may post-date AD 61.

THE EFFECT OF THE REVOLT ON THE ARCHAEOLOGY

We can imagine⁵ that when the horror-struck men, women, and children living in Londinium heard of the attack on Colonia Claudia, the destruction of the Temple of Claudius, and massacre of the inhabitants, they feared for their lives. Londinium was a settlement of traders, craftsmen, merchants, and others, but with no permanent military population. They had taken no discernible measures to defend themselves – no wall, no ditches or ramparts. Because the residents lived scattered over two hills and two eyots, they could not have protected themselves and their property with any kind of boundary with the

warning of only a couple of days. The circumstances at Colonia Claudia would have, in any case, discouraged their confidence of success in fighting back. Unlike at Londinium, veterans formed a large part of the population of the colony at Colonia Claudia, but, even defended by a large group of ex-soldiers, the city still fell. Nor had the administrative and military officials abandoned the colony to its fate; the *procurator* sent auxiliary troops to aid the townspeople and, when that failed, he sent a general at the head of a legion – but both were defeated by the rebels. The governor knew that he could not defend Londinium with the number of men he had available, and encouraged the inhabitants to follow him and evacuate the town. Under such conditions and time pressure, people abandoned their homes and businesses rapidly, probably carrying what they could on boats, carts, pack animals, and their backs. Those who remained behind faced the onslaught of an enormous rebel army, and suffered a terrible fate. The confederated army slaughtered the people they caught in horrific ways, looted homes and stores, and laid waste to everything in their path. The fire that they started destroyed nearly every timber structure standing in Londinium and they left behind a town in ruins.

Before long, however, people returned (or arrived afresh) to reclaim building materials, collect recyclable glass and metals, and to forage in the debris for lost possessions and other potentially useful goods. Significant rebuilding and expansion characterised the Neronian/Flavian-period revival of the town – the construction of a new fort in the eastern part of town (Dunwoodie forthcoming) probably aided the confidence of the townspeople, many of whom returned to reclaim their property and rebuild their houses, shops, and workshops, which can be demonstrated through maintained property boundaries and wall placements (see, e.g., Hill and Rowsome 2011a). This continuity, along with the arrival of the new governor and dendrochronological dates of the rebuilding, such as a timber-corduroy boardwalk in the upper Wallbrook Valley dating to AD 62 or later (at Drapers' Gardens: Ridgeway 2009), the Neronian quay dating to AD 63/64 or later (at Site 71: Brigham and

⁴ Excepting, of course, the Group 3.2 buildings which post-date Group 2 and pre-date those standing at the time of the Boudican fire: see page 30.

⁵ We can imagine based on the colourful, and no doubt imaginative and embellished, descriptions provided by Tacitus (*Annals* 14.33) and Cassius Dio (60.20), which must, of course, be understood as constructs to be analysed within their specific social and historical contexts as well as in relation to their intended audiences and the functions and meanings of their messages (see, e.g., Mellor 2011). The scene is somewhat corroborated archaeologically, however, by the extent of the destruction debris in Londinium, Colonia Claudia, and Verulamium.

Watson forthcoming), and the bucket chain water-lifting machine dating to AD 63 or later (at 30 Gresham Street: Blaire et al. 2006), indicates that the period of time before rebuilding was possibly only one to two years. Suggestions of a war-torn, abandoned town for a decade or more after the Revolt are the result of modern constructions of ceramic dating and parallels drawn from the state of London after the Blitz (Millett 1983).

The Boudican fire debris itself was levelled to form the ground surface in many areas when people returned to rebuild. Being exposed, some deposition of later objects occurred in the debris. Many site reports phase the destruction debris with post-AD 60/61 redevelopment because the sediment was levelled and/or redeposited (e.g. Hill and Woodger 1999; Dunwoodie 2004). It is a key part of the methodology employed here to include the destruction-debris deposits as part of the interpretation of the underlying structures but to exclude small numbers of artefacts that post-date AD 60/61 and the fills of intrusive features that cut into the debris. Large mixed-date deposits, such as the Claudian/Neronian-period ‘tavern-debris’ ceramics included in a later period as backfill at Site 22 (see Hill and Rowsome 2011a), have, however, been excluded because there is no way to separate stratigraphically which materials were in use in the pre-Boudican period.

Post-fire clearance, dismantling, and robbing have failed to obliterate the majority of the wall alignments, floor surfaces, internal features, and yards. Indeed, several buildings retain *in-situ* burnt timbers and are covered with thick layers of debris from the collapsed superstructures, sealing the floors and internal features beneath. Although curate behaviour and looting would have depleted the systemic assemblages of the buildings, the artefacts associated with these sealed occupation levels represent at least partial primary and de facto deposition (see Schiffer 1987) because of the rapid abandonment associated with war-time fleeing and catastrophic destruction.

Demonstrating that deposits on land lacking buildings and fire debris are pre-Boudican is somewhat problematic; the later fills of ditches and pits associated with the

earliest road construction, but dug into land that was not built upon in the pre-Boudican period, can date to as early as AD 47 or as late as AD 70. Many of these deposits do, however, underlie significant land-levelling episodes and structures associated with the late Neronian/Flavian redevelopment of the town, allowing the earlier deposits to be separated as likely to be pre-Boudican. A conservative approach is taken here to the inclusion of contexts from such areas, and every attempt made to limit features to those most likely to have been in use around AD 60/61 (cf. Cowan et al. 2009: 16–17, fig. 5 for a less conservative view of sites in Southwark dating to c. AD 50–70), and it is highly unlikely that later contexts have been erroneously included. For example, Waterfront 1 at Site 118 and Waterfronts 1 and 2 at Site 95 are included in Cowan et al.’s (2009) group of roughly AD 50–70 features, but excluded from Group 3 here because they can be shown to post-date AD 60/61.⁶

DETAILED DISCUSSION OF FEATURES

Included in this chapter are about 9,000 contexts from 102 sites (Figure 31), which includes the fills of some earlier intrusive features (c. 150 contexts) – the sixteen sites not included are those for which the only evidence incorporated into this project was that of the main roads discussed in Chapter 2. The features discussed in detail in this chapter consist of the open-area features on land without structures, such as areas of quarrying, large ditches, and burials; the roads and road drainage for which there is evidence both in the form of excavated road surfaces and in the positioning of buildings that allude to a possible road; the fragmentary evidence of continued waterfront development; analysis of the measurements, relationships to roads, and structural details of

⁶ Waterfront 1 at Site 118 and its associated deposits overlay the collapsed waterfront revetment or fence paling ‘Structure 1’, constructed of timbers with a heartwood dendrochronological date of AD 49, indicating that the trees used are unlikely to have been felled before AD 60, and an adjacent timber on the foreshore dated to AD 61 or later (Yule 2005: 14–16). At Site 95 the channel fills associated with Waterfronts 1 and 2 (Cowan et al. 2009: 16, figs. 5, 69) date to around AD 65–80 (Cowan et al. 2009: CD tables 22 and 24).

132 buildings; and a discussion of 3 buildings that could have been public or high-status structures. The variation noted in the earlier settlement ([Chapter 3](#)) continues into the later pre-Boudican period and the social differences of the three areas of the settlement are discussed in each section.

Open areas

External activity areas

The evidence for the occupied areas is complemented by a discussion of the evidence of locations that are likely to have been sites of pre-Boudican external, open-area activity ([Figure 32](#)). This discussion of open land is based entirely on positive evidence – excavated areas of pitting, ditches, etc. that can be dated to the pre-Flavian period. There are large swaths of land where negative evidence would suggest open areas, but in the conditions of urban archaeology, which are driven by modern development and cannot be based on systematic sampling strategies, arguing from negative evidence is often insupportable. For example, although no pre-Boudican structures have been excavated in plan on the southern eyot in Southwark, excavators identified a recognisable horizon of Boudican fire-destruction debris along the whole length of the 300-metre British Telecom tunnel excavated in 1991 (Site 105), as far south as 143 Borough High Street, approximately one-third of the way along Southwark Road 1 on the southern eyot. Similarly, although there is no structural evidence for long stretches along Cornhill Road 1 and Cornhill Road 2 – for example, between the Walbrook crossing and Cornhill Road 5, and between the buildings along Cornhill Road 2 – it is possible to suggest that they would have been densely occupied; large, well-placed, well-preserved roadside sites, such as Sites 22, 51, and 101 and evidence of Boudican fire debris, which must have derived from wooden structures, identified during watching briefs, such as at Sites 62 and 63, provides information and analogy to fill in the gaps with closely spaced buildings facing onto the street.

On Ludgate Hill the dense occupation along Ludgate Hill Road 1 diminishes shortly beyond the second Fleet

tributary stream, where the road began to descend into the Fleet valley and the adjacent land probably became marshy and unstable. Despite extensive excavation, pre-Boudican occupation cannot be identified north of Ludgate Hill Road 1 in the area of the later fort, amphitheatre, or upper Walbrook; land beyond about 80 metres north of Ludgate Hill Road 1 was uninhabited, but perhaps used for collecting timber and rushes, and quarrying clay, sand, and gravel. At the western end of Ludgate Hill Road 1, set back from the north side of the road (at Site 15) and across from structures south of the road, the large early quarrying area (see [page 35](#)) was still being filled with sediment in the late pre-Boudican period. Similarly, an area of open quarrying (at Site 14) north of the buildings associated with Cornhill Road 6 and further pitting and deposition (at Site 24) north of buildings fronting onto Ludgate Hill Road 1 (at Site 13) indicates that the built space was limited to the roadside areas to the south. Similarly, pits and limited deposition (at Site 27) and burials (at Site 29) characterised the use of the land south of Ludgate Hill Road 1 set back from buildings associated with Ludgate Hill Road 1, Ludgate Hill Road 2, and Ludgate Hill Road 3 (at Sites 19, 20, and 23). Between the buildings on the south side of Ludgate Hill Road 7 and the waterfront there is no evidence for pre-Boudican activity, probably because the focus was on the public area of the roads with the exception of the isolated buildings along the waterfront near the Walbrook (at Site 26). The mouth of the Walbrook, often cited as a likely natural harbour (perhaps stemming from Lethaby 1923: 234), has no evidence of pre-Boudican development, and the land on Cornhill that sloped down to the stream was an open and marshy foreshore (at Site 77).

South of the Thames there do not appear to have been structures in the acute angle formed by Southwark Road 1 and Southwark Road 2 near the bridgehead; large quarry pits there (at Sites 107 and 110) were still in the process of being filled in the pre-Boudican period. Habitation was scattered along Southwark Road 2, and the yards behind structures on the eastern side of Southwark Road 1 indicate that the eastern side of the northern eyot

was open land. A fenced area and muddy cow hoofprints excavated on the southern part of the northern eyot between Southwark Road 1 and Southwark Road 2 (at Site 98) suggest animal enclosures and a nearby cow byre. The southern eyot was probably entirely open land west of Southwark Road 1 as no definitely pre-Boudican features have been located on excavations in that area (see Cowan et al. 2009). No other eyots south of the Thames show signs of occupation in this period. Deposition along the waterfront and in open ditches (at Sites 91, 94, 95, and 96) is characteristic of the eastern side of the southern eyot, perhaps suggesting use by people and boats travelling up the Thames from the east and the Channel (see also page 76).

Large ditches

In addition to the sixteen large early pre-Boudican ditches discussed in Chapter 2 and four in Chapter 3, there are fourteen other large ditches that cannot be shown to be as early, and so are discussed here (Table 14). Several of these ditches have been used to support the Claudian fort hypothesis for the origin of Londinium (Perring 2011; see also Wallace 2013 and pages 17, 37 44–5, and 51 above). Eight large ditches illustrated in Figure 32 bore V-shaped profiles and another had a possible V-shaped re-cut. This type of ditch is described in the third-century *De Munitionibus Castrorum* as the ‘*fossa fastigata*’ used when constructing the defences of a camp or fort in conjunction with a bank or berm (Pseudo-Hyginus, *De Munitionibus Castrorum* 49; Jones 1975: 106). Another oft-cited feature thought to be indicative of a defensive purpose is the so-called ‘ankle-breaker’ profile, a rectangular slot at the bottom of a ditch (noted in the ditch at Site 115). Finally, the pairing of ditches at the Walbrook and Bishopsgate has been presented as further evidence of their function.

Double ditches, V-shaped ditches, and those with ‘ankle-breaker’ profiles are not necessarily military in nature, however: on Cornhill large boundary ditches surrounded the cemetery at Site 72, and north-west of the cemetery the two large, parallel, east–west V-shaped

ditches (at Site 48) were recorded underlying a Flavian road. On the eastern slope of the Walbrook two V-shaped north–south ditches were dug west of Cornhill Road 12 (at Site 87) and were overlain by two later ditches and a Flavian road. Unfortunately no plans from this site were available, but their approximate location is near the later Walbrook crossing. Another V-shaped ditch, more properly discussed in association with buildings, was found at Site 79 west of Cornhill Road 3 and south of Cornhill Road 4 after the destruction of early pre-Boudican buildings at the same time as the construction of a new later pre-Boudican building; it probably served to drain the land for the new construction or to provide a boundary division.

South of the Thames, on the northern eyot, a ditch with an ‘ankle-breaker’ profile (at Site 115) north-west of Southwark Road 2 was associated with open land and replaced by a fence in the Flavian period after being filled, indicating that it was likely to be a boundary marker; it also could have drained the low-lying land into the inlet to the south-west. Two other large V-shaped ditches were located on the northern eyot: a V-shaped ditch formed part of a ditch-and-bank feature protecting the eyot from flooding (at Site 117) and one west of Southwark Road 3 (at Site 118) apparently provided drainage for that road and the nearby waterfront area. Three more large ditches were found east of Southwark Road 1 on the southern eyot just before the road crossed the Borough Channel (at Site 96). One was approximately parallel to the road and had a stepped profile, another lay at a 45-degree angle to the road and had a rounded profile, while the third was steep-sided and flat-bottomed with a possible V-shaped re-cut. Their placement near the road and a stream channel is similar to several other large ditches (e.g. those draining water away from Cornhill Road 2 to the Lorteburn Stream, from Ludgate Hill Road 1 to the Walbrook and the Fleet tributaries, the single ditch apparently draining the foreshore area west of Cornhill Road 3 into the Thames, and the other northern eyot ditches just mentioned), supporting the interpretation of the use of some large ditches in the pre-Boudican period to drain land and quarry building

Table 14. *Large Group 3 ditches*

Site no.	Zone	Depth	Width	Special profile?	Associated feature	Relationship to Settlement Structure	Finds of note
48	Cornhill	1.4 m	2.5 m	V-shaped	Flavian road, overlying	North of cremation cemetery	None
48	Cornhill	1.4 m.	2.5 m	V-shaped	Flavian road, overlying	North of cremation cemetery	None
63	Cornhill	1.2–1.8 m	1.5–2.29 m	U-shaped	Cornhill Road 1	Perpendicular to and north, intersecting?	None
72 (1)	Cornhill	Not specified	0.6–1.5 m	Not specified	Cremation cemetery	North of proto-forum	None
72 (2)	Cornhill	Not specified	1.0–1.15 m	Not specified	Cremation cemetery	North of proto-forum	None
79	Cornhill	Not specified	Not specified	V-shaped	Group 3 building, Cornhill Road 4	South of Cornhill Road 4	None
87	Cornhill	Not specified	Not specified	V-shaped	Later ditches and Flavian road, overlying	West of Cornhill Roads 6/12	Early pottery (unknown type)
87	Cornhill	Not specified	Not specified	V-shaped	Later ditches and Flavian road, overlying	West of Cornhill Roads 6/12	Early pottery (unknown type)
96 (1)	Southern eyot	1.5 m	3.25 m	Rounded but steeper in places where it cut channel fills	Southwark Road 1	45° running south-east away from eastern edge of the road	Oak beam, a structural timber not <i>in situ</i> ; animal remains, particularly lamb crania
96 (2)	Southern eyot	1.2 m	2.5 m	Rounded in part; steep-sided with a flat bottom in part; possible V-shaped re-cut	Southwark Road 1	2 sections of ditch <i>c.</i> 10–12 m east of road: northern section angled more north-east than the road; second section angled away to the south-east from the road	None
96 (3)	Southern eyot	0.9–1.2 m	<i>c.</i> 1.75–4.0 m	Stepped profile (water eroded?) on western side, eastern side steeper	Southwark Road 1	Parallel to and east of <i>c.</i> 20 m; ditch turned towards south-east further south	Two nearly complete Samian vessels and a human cranium
115	Northern eyot	1.25 m	<i>c.</i> 3.5 m	V-shaped with ankle-breaker profile	Post-Boudican fence, overlying	North-west of Southwark Road 2	Grog-tempered pottery
117	Northern eyot	1.2 m	2.5 m	V-shaped	Part of a ditch-and-bank structure	Perpendicular to and east of Southwark Road 1	None
118	Northern eyot	0.9 m	2.75 m	V-shaped	Southwark Road 3	Perpendicular to and west of road	None

material for roads, while others were boundary markers and features of settlement planning. Other smaller ditches perpendicular to Southwark Road 1 cut to drain water away from the road exist at Sites 89 and 91.

The chronology of the large ditches is important to the argument that some (Sites 5, 44, 48, 56, 73, 87, and 115) were constructed as parts of defensive circuits associated with one or more Claudian military enclosures (Chapman and Johnson 1973; Mattingly 2006: 274–5; Perring 2011; see also Wallace 2013). One of the Site 87 ditches contained LIA pottery, and the ditch at Site 115 contained Romanising native grog-tempered pottery. This dating evidence, along with their profiles, has produced the interpretation that they were early ditches associated with Claudian military enclosures (Perring 2011). Two of the Group 3 large ditches appear to be associated with mid- to late pre-Boudican development (Sites 78 and 118) and four with late pre-Boudican planned expansion perhaps interrupted by the fire (Sites 48 and 87; P. Rowsome, pers. comm.). The other eight large ditches could have been dug at any point in the pre-Boudican period, but are discussed here as it is impossible to suggest that they are earlier. As the careful stratigraphic analysis used here shows, it is possible to tie certain features to a place within the pre-Boudican sequence through examination of their relative chronology and association with early road building and quarrying (c. AD 47/48) or the structures standing at the time of the Boudican fire (c. AD 60/61). The ditches at Sites 5, 44, 56, and 73, filled and built over before the Boudican fire like many other large ditches, were demonstrably early in the stratigraphic sequence, while the ditches at Sites 48, 87, and 115 were not, and cannot be dated more precisely than as ‘pre-Flavian’. Suggestions that the ditches at Sites 87 and 115 can be dated to the invasion period on the evidence of small ceramic assemblages is insupportable: the negative evidence provided by the lack of certain forms and fabrics thought to post-date AD 50 is far more likely to be a by-product of the small size of the assemblages and the position of the ditches outside areas of settlement and deposition; the Romanising native pottery found in these ditches was certainly in

use during the pre-Boudican period and is not characteristic of the ‘invasion period’ specifically. Indeed, grog-tempered Belgic-type pottery is considered by some to be of post-conquest date in the London area (Greenwood 1997; Thompson 1982). Furthermore, ceramic dates are those of deposition, not production, and cannot be used to suggest such a limited window of time as ‘the invasion period’, placing the dates of the ditches closer to AD 43 and a supposed Claudian fort than AD 50 and the growth of the new town. Iron Age material culture continued in use and should not be unexpected in Roman levels in the two decades after the invasion (Wait and Cotton 2000: 104).

The functions of these large ditches have also been suggested as linking them to a supposed Claudian camp. Like the Group 1 large ditches, however, those from Group 3 are demonstrably associated with road planning and building, quarrying, drainage, and boundary formations. They are positioned to drain roads and low-lying areas (Sites 63, 96, 115, 117, and 118), to drain land and quarry material in association with construction of buildings (Site 79), to plan roads (Sites 48 and 87), and as boundaries (Site 72). Those double ditches proposed as forming the northern and western sides of an invasion-period fort (Sites 48 and 87) are positioned beyond the areas with evidence of occupation. The northern of these pairs of ditches lay beyond a cremation cemetery with its own double boundary ditches. If a Claudian fort had determined the plan and location of the later town, burial would be expected to have been excluded to areas outside the settlement, certainly outside a boundary as significant as a double-ditch defensive circuit. As this is not the case, and as the ditches in question underlay Flavian roads, it seems far more likely that they were dug as part of the planning process for the expansion of the street grid, which may have been envisioned in the pre-Boudican period, but was interrupted by the Revolt and ensuing destruction of the town. The Site 48 ditches are also positioned north of other Flavian roads and the Site 87 ditches are associated with the second, later, Walbrook crossing (see also page 74).

Defining the open land in pre-Boudican Londinium is significant supporting evidence for the lesser occupied area shown in [Figure 67](#) as compared to recent maps of the town in AD 60/61 (e.g. Rowsome 2008). Drawing together the evidence of the open-area features also allows certain features to be understood within the overall context of the structure of the settlement. For example, the strength of the military-settlement interpretations of the large ditches is diminished when they are understood as imprecisely dated features within their surrounding landscape context of several other ditches, animal enclosures, a cemetery, etc. This presentation of the open areas aids interpretations of the post-Boudican redevelopment of the town and increases the significance of the vast and rapid later first-century expansion.

Burials and settlement limits

On Ludgate Hill, beyond the Fleet tributary streams (at Site 21), quarrying and pitting denotes open land associated with (perhaps later) cremation and inhumation burials, which indicates that the area was outside the settlement. Further east, however, within the area of the later walls, south of the buildings at Site 19 on the southern side of Ludgate Hill Road 1 (at Site 29), a cremation burial in a two-handled stone urn with a conical lid and pedestalled foot containing a copper-alloy *as* of Claudius was excavated in 1880 (along with at least seven other cremations) (Tylor 1884). Although the coin could have been kept into a later period and the burial could be post-Claudian, it is worth noting that no Claudian coins were deposited in burials in the Eastern Cemetery (Barber and Bowsher 2000) or the Western Cemetery (Watson 2003), suggesting that it was not common to retain Claudian coins for later deposition in burials. The bones indicate the individual was a tall male about thirty years old and the vessel (British Museum 1993,0102.12) was made of greyish-black porphyritic olivine-dolerite (Shepherd 1988: 30, n. 32) or basalt from the quarry in Widan el-Faras in the Fayum. The other six burials were also particularly luxurious, although they may not be contemporaneous. The twenty-eight objects

included a two-handled blue glass jar with a lid (British Museum 1993,0102.11) containing cremated remains which was found within a lead canister with relief decoration of the sun god Sol as a charioteer crossing the sky (British Museum 1993,0102.18) along with two copper-alloy bells. Later burials are known within the intramural area on Ludgate Hill, in Paternoster Square, Warwick Square, and on the site of St Martin's le Grand, and so these burials need not be Claudian/early Neronian (Lambert 1915; Marsden 1969; Shepherd 1988).

A ditch enclosure containing a cemetery area was located at the crest of Cornhill, 104.0 metres north of the northern side of the proto-forum. An east-west boundary ditch connected to one of a pair of north-south double ditches on the eastern side, on the approximate alignment of Cornhill Road 1, separated a cremation cemetery (at Site 72) from the area to the south. At least five ceramic vessels, one of which was still *in situ* and contained burnt bone, represent the fragmentary and heavily disturbed remains of the cemetery. The location became occupied land in the Flavian period and, later, part of the forum basilica was built over it. Its location and value must have been lost somehow after the events associated with the Boudican Revolt. Additionally, a possibly pre-Boudican cremation burial composed of an amphora containing one greyware jar of Claudian date and a poppy-headed beaker was found at Bank Station⁷ (RCHM 1928: 155), on the western slope of Cornhill north of Cornhill Road 1, which corroborates other evidence that the northern boundary of the settlement was not far north of Cornhill Road 1.

A large ditch at Site 96 contained a burial of the cranium of an approximately thirty-year-old female with two nearly complete Samian vessels (dish and a bowl). This burial of a skull in a large roadside ditch is similar to that seen at Site 54 south of Cornhill Road 2, although this is only a single burial. This burial is not part of a formal cemetery, but, like those burials south of

⁷ This site has not been assigned a site number because its dating is not very secure (overlying strata are unknown), although its position is rather convincing.

Ludgate Hill Road 1 in Group 2 (at Site 20), a refuse disposal area: a nearby ditch was used for the disposal of domestic refuse and lamb skulls and also contained a large structural timber beam. The burial could, however, indicate that the southern end of the southern eyot was considered, at some point, to be beyond the limits of settlement, which perhaps extended only one-third of the way down Southwark Road 1 on the southern eyot (i.e. as at Site 105). The people living near Southwark Road 1 on the mainland could have lived outside the settlement proper, like the people north of the crest of Cornhill.

Roads and other metalled spaces

Of the earlier roads already discussed (see [Table 9](#) and [Table 12](#)), all except Cornhill Road 7, which was claimed as land for new buildings, remained; the later pre-Boudican roads are primarily side roads and alleys, on Ludgate Hill and South of the Thames, and roads forming the grid-planned core on Cornhill ([Figure 33](#), [Table 15](#)). The roads associated with development up to AD 60/61 vary considerably in their character across the different zones of the settlement. South of the Thames the main new road (Southwark Road 2) is diagonal, and the other roads are primarily small alleys to provide access to back yards, although one links the new diagonal road to the waterfront (Southwark Road 3). On Ludgate Hill small roads branch off the main road, which was the focus of habitation, although a secondary east–west road (Ludgate Hill Road 7) may have been in the planning stages. On Cornhill the new roads fit well into the orthogonal grid that was just becoming visible in the earliest evidence (see [Figure 16](#)).

Cornhill Roads

Cornhill Road 1 was remetalled before the Boudican fire (Sites 51 and 67) and was widened by 1.5 metres, at its eastern end at least (Site 51). A U-shaped ditch with nearly vertical sides was dug north of Cornhill Road 1 at Site 63 and showed a drop in elevation along its

bottom surface away from the road, indicating that it probably served as a drain, perhaps a roadside drain for the road conjectured west of the proto-forum, Cornhill Road 5.

Cornhill Road 2 was widened shortly before the Boudican fire and may have changed alignment; the late pre-Boudican buildings associated with Cornhill Road 2 near Aldgate are not on the same alignment as the earlier pre-Boudican buildings. The post-Boudican buildings along Cornhill Road 2 at Site 56 are also on a markedly different alignment than the pre-Boudican buildings. However, as was discussed in [Chapter 3](#), it is possible that the people constructing buildings along Cornhill Road 2, beyond the main area of settlement, did not have the same relationship to the roads and the central settlement and did not value parallel alignments.

The conjectured position of Cornhill Road 4, for which there is significantly more Group 3 evidence, lay on fairly flat land between 8.0 and 9.0 metres OD approximately 133 metres south of Cornhill Road 1. Buildings at Sites 88 and 47 can be illustrated to estimate where Cornhill Road 4 may have been located; buildings at Sites 34, 58, and 79, unfortunately, could not be properly located and illustrated. The main planned core lay between these two roads, although it is not certain whether this grid was fully completed by the AD 60/61 fire; however, the alignments of several buildings suggest that it may have been. Certainly, three north–south roads (in addition to the bridge-approach road) have been excavated, but the three others are only conjectured in this period.

The six north–south roads (three of which are conjectured) that connected Cornhill Road 4 and Cornhill Road 1 (Cornhill Road 8, Cornhill Road 9, Cornhill Roads 12–15) sloped upwards gently from Cornhill Road 4 at a grade of no more than 2 per cent. In addition to Cornhill Road 8, which existed also in Group 2, there is excavated evidence for two more north–south roads on Cornhill, Cornhill Road 9 and Cornhill Road 14. The evidence for Cornhill Road 9 consists of rammed gravels about 3.0 metres wide laid

DETAILED DISCUSSION OF FEATURES

Table 15. *Evidence for and characteristics of Group 3 roads*

Road	Site no.	Zone	Width	Make-up	Metalling
Cornhill Road 1	51	Cornhill	Widened by 1.5 m on the south side	–	Gravel
Cornhill Road 4 conjectural	40, 58, 79	Cornhill	–	–	–
Cornhill Road 5 conjectural	38, 43, 57, 63	Cornhill	–	–	–
Cornhill Road 6 conjectural	40	Cornhill	–	–	–
Cornhill Road 8	51	Cornhill	c. 3–4.0 m wide (3 patches of metalling)	–	Compacted gravel 0.20–0.40 m thick
Cornhill Road 9	51	Cornhill	c. 3.0 m	0.15 m brickearth slab	Rammed gravels
Cornhill Road 10	67	Cornhill	c. 2.5 m	–	Gravel
Cornhill Road 11 conjectural	51, 55	Cornhill	–	–	–
Cornhill Road 12 conjectural	40, 83, 84, 88	Cornhill	–	–	–
Cornhill Road 13 conjectural	58	Cornhill	–	–	–
Cornhill Road 14	31, 33, 45, 62	Cornhill	–	–	Compact gravel surfacing at Site 45
Cornhill Road 15 conjectural	50	Cornhill	–	–	–
Southwark Road 2	107, 110, 112, 114	Northern eyot	c. 4.2–4.5+ m	On natural clay	Sandy gravel
Southwark Road 3	118	Northern eyot	c. 6.5 m	–	Gravel
Southwark Road 4	101	Northern eyot	c. 3.75 m wide	–	Gravel
Southwark Road 5	101	Northern eyot	c. 3.0 m, traced for 15 m	–	Sand and gravel
Southwark Road 6	108	Northern eyot	measurement unknown; fence marked the alignment and location of a possible path where there was a later road	–	Sandy gravel area, no proper surface, however
Southwark Road 7	100	Mainland south of the Thames	c. 3.0 m	–	Gravel
Ludgate Hill Road 2	20	Western Hill	c. 1.0 m.	–	Gravel
Ludgate Hill Road 3	23	Western Hill	c. 7.0 m	–	Gravel
Ludgate Hill Road 4	16	Western Hill	>2.8 m	Overlies an area of filled quarry pits	Gravel
Ludgate Hill Road 5	1	Western Hill	<2.8 m	–	Gravel
Ludgate Hill Road 6	16, 22	Western Hill	4.6–5.2 m	Brickearth and gravel	Gravel
Ludgate Hill Road 7 conjectural	3, 29	Western Hill	–	–	–

on a 0.15-metre-thick layer of brickearth overlying an earlier building (Site 51 Building 44). Because Site 51 Building 44 had to be levelled to construct Cornhill Road 9, the building must pre-date the enforcement or

execution of the plan, indicating that the construction of the roads took some time, as at Colonia Claudia (Crummy 1988). The north–south road parallel to and west of Cornhill Road 3, Cornhill Road 14, has been

located at Site 45 overlying an earlier east–west ditch on that site, but unfortunately no illustrations were available (see Williams forthcoming) and so its location must remain approximate. Cornhill Road 12, 13, and 15 are conjectured based on the positions and alignments of nearby buildings and the distance between the two excavated roads Cornhill Road 8 and Cornhill Road 9 (c. 90 m). The westernmost road(s), Cornhill Road 6/12, is the most convincing conjectural road based on the 15-degree alignment of buildings facing onto its eastern side. It might also have seemed sensible to the planners to lay out the outermost roads (Cornhill Road 6/12 and Cornhill Road 8) of the symmetrical plan before constructing the four inner roads (Cornhill Road 9, 13–15); certainly Cornhill Road 9 appears to post-date Cornhill Road 8 and the earlier buildings that suggested Cornhill Road 6 (see Figure 25) imply that Cornhill Road 12 may have already been constructed as well.

Cornhill Road 7 (see Figure 22) was destroyed to make way for a range of three new buildings north of Cornhill Road 1, and a new east–west street or alley, Cornhill Road 10, was constructed between two of these buildings. Cornhill Road 10 was approximately 2.5 metres wide and, like all other roads, surfaced with gravel. It is likely that it led between the proto-forum on the west and a road to the east – the conjectured Cornhill Road 11. A timber-lined box drain behind the southernmost of these new buildings also seems to drain to the east, probably into a roadside drain on the western side of Cornhill Road 11 and then down to the northern side of Cornhill Road 1.

The evidence suggests that the new roads were built slowly, and it is possible that the town was destroyed at a point during the planning of a full programme of roads, and perhaps accompanying monumental and civic structures. A regular grid is not a necessary feature of the settlement, and need not have been completed in the pre-Boudican period. Although this grid could be imagined and reconstructed in different ways, one way, and the way most appealing to me, is that there were six north–south roads built (or planned) on either side of the central bridge-approach road between two main east–west streets.

Ludgate Hill Roads

West of the Walbrook, excavators have found that Ludgate Hill Road 1 was remetalled (at Sites 5 and 22) and at least five secondary roads were constructed. At Site 20 the southern edge of Ludgate Hill Road 1 is suggested by the site report (Watson and Heard 2006) to be considerably further south (indicated by a dotted line on the figures here, e.g. Figure 39) than the evidence suggests at other sites, and it is supported by the position of buildings further west at Site 19. The alignment of the road is not different, only the width. It is possible that the buildings along that stretch of Ludgate Hill Road 1 built a gravel-metalled pavement between their buildings and the road itself, which made the road appear to be further south or, more likely, the road was widened in that area to overcome the result of the earlier preference for building further away from the road (as was common among the earlier buildings on Ludgate Hill: see page 56), perhaps.

Ludgate Hill Road 2, at the western end of Ludgate Hill Road 1, was a narrow north–south alley to provide access to the back yards of buildings south of Ludgate Hill Road 1. The north–south Ludgate Hill Road 3, which did not run in a straight line, was about 7.0 metres wide and probably represents a road for access between Ludgate Hill Road 1 and a conjectured road to its south. Ludgate Hill Road 4 and Ludgate Hill Road 5 were north–south roads that connected the diagonal Ludgate Hill Road 6 back south to Ludgate Hill Road 1 and, therefore, post-date Ludgate Hill Road 6, which had a precursor in the earlier track along the same alignment (see Figure 21).

The secondary east–west road south of Ludgate Hill Road 1 is conjectured as Ludgate Hill Road 7. There is no excavated evidence in the pre-Boudican period for this road except for the structures seemingly aligned to it at Sites 3 and 30. The second, more southern, Walbrook crossing noted by Merrifield (1965: Gaz. 251) and the connecting road described by Perring et al. (1991) are probably later (Wilmott 1991: 26). It is reasonable, therefore, to suggest a road, or a precursor of a road, but not a river crossing, or to necessarily identify the pre-Boudican road/track with the later road and river crossing. It is

more likely that any road or track shared the same river crossing at Cornhill Road 1/Ludgate Hill Road 1 and was aligned to the known pre-Boudican structures at Sites 3, 7, and 30. Ludgate Hill Road 7 and the buildings associated with it are evidence of the rapid non-orthogonal expansion of the settlement on Ludgate Hill associated with later pre-Boudican activities (see also Hill and Rowsome 2011a), and there is no reason to suggest that the planning undertaken in this period need be reflected in the later Neronian and Flavian evidence.

Roads south of the Thames

South of the Thames a subsidiary road (Southwark Road 2) was built to lead south-west from the bridgehead, although the intersection/fork has never been located archaeologically. It was previously thought that Southwark Road 2 linked an earlier ford at Westminster to the southern bridgehead (Sheldon 1978: 13), but recent excavations have failed to find any evidence that the road continued that far south-west, or indeed past the northern eyot (Watson et al. 2001: 14). The road consisted of a level gravel surface laid directly on natural clay, and has been located on at least four sites, where its width was recorded as between about 4.2 metres and 4.5+ metres. North-west of Southwark Road 2 is a small stretch of gravel metalling (Southwark Road 3), representing a road connecting Southwark Road 2 north to the waterfront, which was laid directly on natural brickearth. It had a large V-shaped ditch perpendicular to it to the west, perhaps for drainage.

There are also three alleys (Southwark Road 4, Southwark Road 5, and Southwark Road 7) that led off of Southwark Road 1 to provide access to the back yards of buildings, and one early fence alignment and sandy surface (Southwark Road 6) that represented the planning stages of a Flavian road north-west of Southwark Road 2.

Drains

The earlier cross-drains underneath the primary metalling of Ludgate Hill Road 1 and Cornhill Road 1, and also drains redirecting water from tributaries west of the

Walbrook, have already been discussed in relation to early land clearance and drainage; such systems were probably still functioning and, in one case, augmented (at Site 22). It was often difficult for excavators to determine whether these drains were contemporary with the primary metalling or not (e.g. as at Site 5: see Hill and Woodger 1999: 7) and the re-cutting of drains in later periods often obscured the evidence of the earliest drains (as at Site 22: see Hill and Rowsome 2011). Nonetheless, evidence of pre-Boudican timber-lined box drains has been found at several sites and the robbed remains of other roadside ditches suggest that they also contained timber planks. The best-preserved example (at Site 5) measured about 0.40 centimetres square in section and was constructed of scarf-jointed planks supported by timber cradles. Near the westernmost occupation along Ludgate Hill Road 1 (at Site 20) there is also evidence for a more substantial, unlined ditch on the southern side of the road, and the buildings there may have been constructed with their fronts raised above the ditch. Similarly, the ditch along the north side of Cornhill Road 1 east of the proto-forum was unlined and measured 0.76 metres wide and 0.46 metres deep, while at the eastern end of Cornhill Road 1 there is evidence for timber-lined roadside box drains on both the north and south sides of the road, and the northern of these was replaced after a widening of the road. South of the Thames a possible unlined roadside ditch along Southwark Road 1 has been recorded at Sites 93 and 101, as have perpendicular ditches used to carry water away on the low-lying eyots (Sites 89, 91, 96, and 118: see page 68). At Site 118 fragments of ceramic water pipes were found in the ground-consolidation dumps alongside Southwark Road 3. These examples, not *in situ* or associated with a contemporaneous structure (like the voussoir tiles also found there) present the possibility that such pipes were used as drains elsewhere, although they could also have been extra cargo on a ship, never used in a structure, and employed only as a component of the ground consolidation in this marshy waterfront area.

Because different stretches of the main roads were equipped with different drain arrangements, it is unlikely

that these drains were constructed as part of a larger programme of water management, but, rather, were organised by the people who owned the properties fronting onto the sections of road (see also Dunwoodie forthcoming).

Waterfront development

The Cornhill waterfront underwent significant expansion and improvement (Figure 34), although its character was still very different from the well-appointed port with warehouses, landing stages, and large quays it would become in the later first century (see, e.g., Bateman 1986; Brigham and Watson forthcoming; Milne 1985; Swift 2008). The level of the river was still affected by tides in the Roman period; the intertidal area had been used for quarrying in the earliest phase of activity (see Figure 6). In association with activities discussed in Chapter 3, it was overlain in part by a flint-and-chalk or gravel artificial surface for beaching flat-bottomed boats and revetted in part to form an artificially straightened shore (see Figure 14). In the late pre-Boudican period discussed here, another riverside revetment (dated to AD 55/56 or later (Swift 2008)) was constructed to form the edge of the lowest waterfront terrace. Timber structures, which probably were mooring posts and jetties, extended into the river. The earlier (AD 52 or later) artificially straightened and revetted waterfront of Cornhill was perhaps only originally extended across areas susceptible to erosion, and, in this period, it was augmented and expanded across other areas of the foreshore, east and west of the bridge, with the new timber post-and-plank structure.

On the west side of the bridge the land was terraced on at least two levels. A substantial, approximately 2.5-metre-wide chalk-and-flint retaining wall supported by timber piles (AD 54/55 or later (Swift 2008)) formed a terrace. Such a wall would have required significant labour and may suggest a high-status, monumental, or perhaps public structure. Timber piles further west on this terrace (built just above the masonry retaining wall) mark the location of an apsidal-ended building (Site 37

Building 1; see also page 91) that probably faced onto Cornhill Road 4 to the north and may have been constructed of masonry, although none of the superstructure survives. One timber building (Site 71 Building 2) was recorded on the uppermost terrace immediately west of the bridge. The development and structures did not extend as far west as the Walbrook, as there is excavated evidence of a marshy tidal foreshore area at the eastern mouth of the stream (Site 77).

East of the bridge, on the foreshore gravels, a brick-earth surface associated with a timber-lined tank set in a clay-packed trench (at Site 52) represents an area used for the storage of liquids or, possibly, the production of fish sauce (Bateman 1986). Gravel embankments supported by timber piles (at Site 80) functioned in conjunction with a post-and-plank timber revetment (Site 81) and mark points of access.

South of the Thames, on the eastern side of the northern eyot (Figure 34), there is evidence for an early river embankment in the form of a ditch-and-bank feature with a line of revetment posts. This feature would have prevented flooding to its south and provided drainage into the river, but it is not suggestive of an area for mooring or beaching boats. The waterfront area on the north-western side of the northern eyot south of the Thames (Figure 35) was probably also in use, but the earliest evidence for a timber waterfront revetment there post-dates AD 60 (Yule 2005: 14). The presence of a north-south road (Southwark Road 3) and perpendicular drainage ditch does, however, suggest earlier activity focused on the waterfront. A collapsed structure could represent a possible fence paling or revetment, but it was not preserved *in situ*. The dendro-chronological date of that structure (heartwood AD 49) indicates the timber used to construct it was unlikely to have been felled before AD 60 (Yule 2005: 14–16). The construction of Southwark Road 2 and Southwark Road 3 suggests that the waterfront on the western side of the northern eyot was beginning to be used, and perhaps not all of the trade, fishing, and transport was directed to the northern shore and carried over the bridge to the areas in Southwark.

The channel between the northern and southern eyots was partially revetted, at least where Southwark Road 1 crossed it; it may have been a navigable route (Cowan et al. 2009). A natural inlet on the eastern side of the southern eyot was not yet fitted with timber revetments or jetty, as it was soon after AD 60 (Site 95) (Cowan et al. 2009: CD table 22). It may have already functioned as a small harbour providing shelter to boats and an access point for people and goods to be transferred from land to river, although the assemblage from the sediment deposited within the channel has a *TPQ* of AD 65.

Buildings, structures, and yards

Of the 114 recorded buildings that were standing in AD 60/61 (Figure 37), approximately 69 were burnt in the Boudican fire, 9 were probably burnt in the Boudican fire, and 36 others were either heavily cleared of debris or did not suffer destruction by fire. There is also evidence of burnt debris from the Boudican fire on twenty-three other sites⁸ that is likely to indicate the presence of nearby pre-Boudican structures where buildings were either not observed or recorded (e.g. overlying the alley at Site 113 or in the pit at Site 63: see Figure 36), where observations made by the Guildhall Museum note burnt buildings (e.g. Site 60), and which have not yet been published or archived (e.g. Site 25). There are also eighteen buildings that post-date early pre-Boudican structures on the same sites and were dismantled or destroyed and replaced or disused before the fire (i.e. Group 3.2: see Table 7) – these buildings were probably contemporaneous with other later pre-Boudican structures, and could represent earlier versions of a building before remodelling.

The extent of the Boudican fire

The extent of the Boudican fire destruction has been of interest to scholars for at least the last century because it is likely to represent the extent of occupation in AD

60/61. The Guildhall Museum's Frank Lambert (1921) published a note of Boudican fire-destruction debris he identified on three construction sites in King William Street around 1920, and several further discussions of the debris deposits and maps of their locations have since been compiled. The number of sites identified had increased from three in 1921 (Lambert 1921), to six in 1945 (Dunning 1945), to eleven in 1980 (Marsden 1980), to twenty-one⁹ in 1983 (Millett 1983), and twenty-four¹⁰ in 2002 (Drummond-Murray et al. 2002). There are now fifty-six sites with probable Boudican fire-destruction

⁹ Millett (1983: 246–54) lists the thirty-seven sites from which he investigated ceramic assemblages; only twenty-one of these had remains of the fire-debris horizon. Millett found that four of the thirty-seven sites were not pre-Boudican while twelve others were findspots for early burnt Samian.

¹⁰ Drummond-Murray et al. (2002: 46) did not include all of the sites listed by Millett (1983). Furthermore, three sites in the list of twenty-seven sites compiled by Drummond-Murray et al. do not have evidence of the Boudican fire: Abacus House (ABC87), Fish Street Hill (Site 52, FMO85), and 1–7 Whittington Avenue (WIV88). There is not enough evidence to support a pre-Boudican date for the 9-metre-wide road and closely spaced roadside timber buildings destroyed by fire (*contra* Schofield and Maloney 1998) at WIV88. The site is approximately 90 metres north of the nearest pre-Boudican buildings and east of a cremation cemetery at Site 72 likely to have been beyond the limits of the pre-Boudican settlement. Also, there is no evidence for the road further south, and it seems more likely that it dates to a later period of greater expansion after the construction of the east–west street north of the forum with which the north–south street at WIV88 would have connected. The lack of a phased archive report or other publication to demonstrate the pre-Boudican date made this site impossible to include in the current study. The incomplete archive report for ABC87 suggests that the buildings and associated fire there are later (i.e. Flavian). Drummond-Murray et al. (2002) also included FMO85 (Site 52) in their list (following Schofield and Maloney 1998 and the site's 'Provisional Dating' archive report (DUA n.d.)), but the Boudican fire-destruction debris on that site was redeposited in large quantities to make-up the land and Building A is dated to AD 60–75? in Bateman's (1986) published report, and so is not evidence of the extent of the Boudican fire. Although other foreshore activities on that site are certainly pre-Boudican, they are not represented by Boudican fire-destruction debris. Another such site is AHT99, noted to contain Boudican fire debris on the LAARC online catalogue. The site is situated about 200 metres south-east of the intersection of Cornhill Road 4 and Cornhill Road 8, across the eastern Lorteburn Stream, on Tower Hill, an area so far out of the known pre-Boudican settlement that it is unlikely to be part of it. There was no archive report available for this site and so its pre-Boudican date cannot be confirmed. Finally, Schofield and Maloney (1998) suggest a pre-Boudican date for buildings at GDH85, but the later publication (Bateman 2008) suggests otherwise. The burnt round buildings at 10 Gresham Street (GSM97) have already been mentioned here as erroneously dated to the pre-Boudican period by some, but firmly dated to the Flavian period by the site report (see page 58; Casson et al. forthcoming).

⁸ This figure does not include sites with fire debris redeposited during the Flavian expansion of the waterfront, such as Site 52 (see pages 26–30).

debris known (Figure 36), on thirty-nine of which buildings have been identified, and seventeen of which are locations where Boudican fire debris was noted, but no burnt structures were recorded or observed – for example, in the observations of Lambert (1921) and Dunning (1945), in the British Telecom tunnel in Southwark (Site 105), overlying the alley at Site 113, within the fill of a pit at Site 63, and in the destruction of a timber-lined drain at Site 71. There are also twelve other sites (denoted with an ‘S’ site number: see Figure 33 and Appendix: Gazetteer of Sites) where burnt Samian or Claudian/Neronian date has been found that might indicate further Boudican destruction debris (derived from Dunning 1945; Lambert 1921; and Millett 1983). The distribution of these sites covers all occupied areas except along Southwark Road 2 on the northern eyot south of the Thames, along Southwark Road 1 on the mainland, the waterfront west of the Walbrook, and along Ludgate Hill Road 1 past the Fleet tributary streams. The sites with structures but no fire debris could have been built slightly later than AD 60/61, or they could have been spared from burning somehow, or they could have been so heavily cleared and dismantled that it was not possible to identify evidence of burning archaeologically (for example, Site 20 Building 7, one of the three buildings that were retained into the later period, was adjacent to buildings that burnt in the fire, and Site 22 Building 8, adjacent to buildings that burnt, was completely cleared of destruction debris).

There is no doubt that this count is not a full reckoning of all Boudican fire-destruction debris excavated in London because many construction projects, especially before Lambert’s 1921 identifications, would have revealed evidence that was not necessarily recorded. Or, if recorded, the fire debris could not be dated to AD 50–70 or be distinguished from other fires, including the widespread Hadrianic fire debris. Also, the large amount of likely Boudican fire-destruction debris that was redeposited along the Cornhill waterfront during the later Neronian/Flavian period is an indication that clearance activities were extensive and organised, and that the original extent of the destruction may never be

known. Similarly, later – especially Victorian – intrusive features are responsible for truncation of pre-Boudican levels. Nonetheless, future publications of sites from the study area will almost certainly bring more evidence to light.

Analysis of the structures

The buildings (Figures 37–62) can be analysed for possible indicators of social significance, which might be represented by the size of the building, relationship to roads, the sophistication of the technology involved in constructing it or in the skill of the builder. The techniques used to construct a building can provide information about the tradition in which the builder was working and, possibly, about the cultural traditions of the inhabitants. Alternatively, decorative elements of a structure or materials related to hypocaust heating or indoor latrines could indicate a building whose inhabitants ascribed to the lifestyle, comforts, and values of consumption and display common in contemporaneous Roman urban centres, such as those in Gaul where the high-status *domus* was a medium through which people could construct and communicate their social and economic standing (Gros 2001: 136; Woolf 1998).

Measurements

The frontages of buildings varied considerably among the thirty-two buildings where the complete width was excavated, as did the depth of the eleven buildings where that measurement could be determined (Figure 63). There are only six structures for which both a frontage and a depth measurement is known (Figure 64). This discussion of measurements should be understood bearing these limitations in mind.

It is often said that the buildings of pre-Boudican Londinium were of strip-building type with a width-to-depth ratio of approximately 1:2 or more (e.g. Perring 1991), and there is some evidence to support this point. A scatter plot of the widths and depths of the six known buildings (excluding the largest building, Site 49 Building 2/Site 55 Building 1/Site 67 Building 4, which is the

southernmost building immediately east of the proto-forum and hereafter referred to as the ‘southern proto-forum building’ (see also [page 89](#)) as a convenient term and to differentiate it from the two buildings to its north) shows that they are longer than they are wide at a ratio of approximately 1 : 1.5 ([Figure 64](#)). A scatter plot of minimum excavated widths and depths from fifty-five buildings where the exact figures are not known ([Figure 65](#)) shows that it is more common for buildings to be deeper than they are wide, and nearly half have a width-to-depth ratio of around 1 : 1.5 or more.

Analysis of the well-preserved buildings along Ludgate Hill Road 1 near the Walbrook at Site 22 ([Figure 50](#)) showed that four of the buildings were probably laid out using some form of Roman foot in whole-number units, although the survival of timber, compression of ground-beam slots, uncertainty concerning from which parts of a piece of wood measurements would have been taken, and uncertainty as to whether carpenters were working in whole-number units within a given metrological system complicates such discussions (Goodburn et al. 2011). Consideration of measurements is also hindered by the sizes and shapes of excavation areas and the destruction caused by later truncation – that only 6 of the 114 buildings were well enough preserved and fully excavated to determine their original dimensions in two directions ([Figure 64](#)) is evidence enough. In urban excavations it is not possible either to extend excavation areas for research purposes or to escape the intrusions of nearly two millennia of occupation. These shapes of ‘keyhole’ excavation areas limit the possibilities of architectural analysis.

The widths of buildings must have been, to some degree, limited or influenced by the widths of the building plots, which were themselves not standardised. At one site with a large excavation area on Ludgate Hill (Site 22) the boundaries separating three properties that faced onto Ludgate Hill Road 1 were preserved in the form of timber-revetted terraces ([Figure 50](#)). There is also the eastern boundary of a fourth terrace facing onto Ludgate Hill Road 6 preserved. Fences, ditches, and revetments at several other sites indicate the presence of such

boundaries elsewhere, but on no other site are they preserved in such a way that the width between two could be measured. The plots at Site 22 facing onto the north side of Ludgate Hill Road 1 measured, from west to east, approximately 28.0, 8.0, and 14.5 metres – figures that do not work out to round numbers in *pedes*, and do not suggest a regularity in the surveying, planning, and allocating of building plots. The central plot also extended considerably in width (to c. 30.0 m) towards the rear, limiting the depth of the wider plot to its west. On the westernmost of these terraces three buildings faced onto the road while the area nearest the road was not excavated for the two to the east, but they could not have accommodated more than one or two buildings facing onto the street. The partial *insula* at Site 51 has seven buildings facing onto the street, all of different sizes, on the southern side, indicating that, hypothetically, each plot was just under 13 metres, which would be about 43.7 *pes monetalis* (PM). Neither a round nor a whole number, nor supported by the width of the existing buildings, it is unlikely that the plots were surveyed and allocated in modular units such as those at Cosa (Fentress 2000; Fentress et al. 2004: 23, 24, fig. 10) and Oppidum Ubiorum (Carroll 2003). This diversity and irregularity suggests that plots were claimed or purchased by individuals of diverse economic means, influence, power, and social status. The three buildings positioned so close together on the westernmost terrace at Site 22 ([Figure 50](#)) and those Group 2 and 3.2 buildings sharing walls at Site 50 ([Figures 22](#) and [51](#)) also suggest shared, single properties and shared yard areas, characteristic of communal property ownership or tenancy.

The variation of buildings sizes is much greater east of the Walbrook than west ([Figure 63](#)), although there are at least two fairly large buildings on Ludgate Hill fronting onto Ludgate Hill Road 6 and Ludgate Hill Road 1 near the Walbrook crossing (Site 22 Buildings 3 and 13: [Figure 50](#)). The lower end of this scale begins higher on Cornhill (the minimum known frontage width is greater, at 5.0 m) and the higher end of the range is also considerably greater (the widest, the southern proto-forum building, measured c. 55.3 m, with its porch: [Figure 52](#)). The

average of the frontage widths for the twelve known buildings is also greater (14.18 m) and, even with the removal of the outlying 55.3-metre-wide building, the average width is still greater, at 10.4 metres. Unfortunately there are no preserved boundary markers that would allow for a comparison between the sizes of plots east and west of the Walbrook. Nonetheless, the similar diversity of building widths (although on a different order of magnitude) suggests a similar arrangement of differing plot widths representing a hierarchy in possession and tenancy that probably reflects a stratified society. The pattern suggests that the largest buildings were to be found along Cornhill Road 1 and near the Walbrook crossing. Perhaps people of higher social and economic status were attracted to, and able to claim property along, the main roads north of the Thames.

The social significance of wide street frontages is supported by the association of the two widest buildings, which are directly across the main road (Cornhill Road 1) from each other east of the proto-forum and the central crossroads (the Southern Proto-Forum Building and Site 50 Building 12, hereafter referred to as the 'aisled hall' for ease of reference: [Figure 52](#), see also [page 91](#)). However, the measurement of around 55.3 metres for the southern proto-forum building could be a depth measurement if it was intended to front onto the proto-forum to the west as the two buildings north of it apparently did – evidence at Site 49 shows that the northern two buildings did not extend as far east as the southern building and had small ancillary sheds in the yards to their east. The aisled hall, directly across the road, was the second-largest building at approximately 19.0 metres wide by 13.5 metres deep in its first phase and original design but later extended about 8.0 metres in depth with the addition of a front porch. The physical association of these two widest buildings is significant, and almost certainly indicates that the area east of the crossroads had a different function and status than other areas of the settlement.

South of the Thames the frontal widths of structures were far narrower ([Figures 41, 59–61](#)) than north of the river. The measurements varied from 3.5 to 8.0 metres and the average of the nine known frontal

widths is only 5.0 metres. Although no depth measurements are known, the range of minimum measurements suggests narrow-fronted deep structures with width-to-length ratios of at least 1:1.5 up to 1:3.25. The ratios are similar to those found north of the Thames, but the buildings were constructed on a considerably smaller scale, approximately half the size of the average Cornhill building and only slightly more than half the size of the average building west of the Walbrook.

Relationship to roads

Of the 114 excavated or observed buildings extant at the time of the Boudican fire, 91 probably fronted onto a nearby street. The main roads ([Figure 33](#)) were probably lined with buildings, with little open space between structures. Proximity to the roads was clearly an important factor in the location of structures, and most buildings had a more narrow frontal width and a greater depth. In a town lacking a proper monumental forum, baths, and theatre, the roads were clearly the most significant public spaces.

Builders positioned all structures on Cornhill between the northern side of Cornhill Road 1 and the waterfront to align to the roads. The two waterfront buildings share the same 15-degree alignment as the buildings along Cornhill Road 1 itself, indicating that the influence of the grid encompassed the entire area. In other areas, however, aligning buildings to the streets was not as important: several structures located near Ludgate Hill Road 1, Ludgate Hill Road 7, Cornhill Road 2, Southwark Road 1 on the mainland, and Southwark Road 2 may not have been aligned to their nearby streets. The edge of Southwark Road 1 on the mainland has been defined archaeologically in relation to two of these structures (Site 100 Buildings 1 and 2: [Figure 61](#)), and elsewhere the exact courses of the streets are not known. The alignments of the Site 13 Buildings B and C do not match each other or the road onto which they face ([Figure 43](#)). Buildings at Sites 53, 56, 73, and 82 ([Figures 55 and 56](#)) show divergence from each other but possible alignment to the turns in Cornhill Road 2. This deviancy from the central part of

the planned settlement indicates a different relationship to planning and, probably, administrative authorities.

Close relationships of proximity and ease of access to the public space of the roads was clearly important to all inhabitants, excepting perhaps those living and working on the waterfront west of the Walbrook and those who constructed the animal enclosures at Sites 41 and 98. In all places where both the roads and nearby late pre-Boudican structures have been excavated, buildings spaced no more than 10 metres (and usually less than 4 m) apart have been uncovered, all facing onto, and within 5 metres of, the roads. The intervening space between buildings and roads was part of the property of the associated building. Tenants and/or property owners constructed their own roadside paths: between the road and the fronts of two buildings (at Site 5) were hard, metallised gravel surfaces (Figure 48), while another (at Site 2) had a gravel surface overlain by a timber boardwalk (Figure 50). Elsewhere, the occupants overcame the problem of the need to cross the roadside ditch by constructing the fronts of their buildings to straddle the ditch (Site 20 Buildings 5 and 7: Figure 43 and Site 22 Building 13: Figure 50). The open space between the buildings and roads varied from structure to structure, but a gravel-metallised sidewalk is present along Cornhill Road 1 for the access of, perhaps, three buildings at Site 51 and a raised timber boardwalk was constructed to provide access to another building on that site (Figure 54). A gravelled open yard was laid at Site 50 after a significant transformation of the character of that site from a block of clay-and-timber buildings lining the road (Figure 51) to a large masonry-founded structure set back from that road (the aisled hall: Figure 52). The aisled hall was first separated from the road by the gravelled forecourt, which was reduced in size by the construction of a porch, its original distance from the road being about 10 metres, later reduced to about 5 metres. Similarly, a veranda was added in a second phase of construction of the southern proto-forum building to provide a walkway between the building and the road.

Such property-by-property sidewalk arrangements would not have created a path by which pedestrians could

amble along the side of the road, but would, rather, have facilitated the transition of goods and people from the road, across the roadside ditch, and into a property entrance. Sidewalks, boardwalks, and porches such as these, along with the different drainage arrangements for each property (see page 87), suggest that the planning authority did not extend its influence to drains, ditches, and roadside areas, and that individual initiative was required.

Foundations and walls

The builders of pre-Boudican structures employed a variety of construction methods and materials – often within the same structure. The buildings ranged from small timber sheds and round houses, to more sophisticated clay-and-timber structures, to large and imposing edifices with masonry foundations. Their plans and associated features suggest a diverse array of functions, while their decoration, sizes, and materials provide supporting evidence of a complex and stratified social structure in the town. Lavish buildings are absent – for example, buildings made from *opus caementicium*, roofed with tiles, and embellished with mosaic floors – but these were not common in Gaul until the late first century AD, and ought not to be expected in urban centres in Britain at this date (Woolf 1998: 123). Nevertheless, the buildings in urban centres in Gaul differed significantly from Iron Age structures in the vicinity, as they differed from other contemporaneous Mediterranean architecture. The situation in Londinium is similar; although the vast majority of the buildings are relatively modest, they are some of the earliest urban structures in the province, and the construction techniques employed both new imported and traditional indigenous skills and executed the designs in primarily local materials.

Roman-period timber framing required skilled carpenters using precise right angles, snap lines, squares, and rules, and could be facilitated by considerable prefabrication of two-dimensional frames. This method of construction was introduced to Britain by craftsmen from the Continent and is characteristic of technological

innovation in tools and techniques (Goodburn 1991). Many buildings exhibit mixed construction and wood-working techniques, especially between the outer walls and interior partitions. In buildings where beam-slots and sills have been found along with post- and stakeholes, generally the external roof-bearing walls were timber framed and the interior walls, lean-tos, and other additions were of the slighter construction, which might indicate that people engaged skilled carpenters and builders for the main construction of the building and finished the interiors and additions themselves or with unskilled labourers.

One of the best-preserved examples of mixed building traditions is apparent in Site 2 Building 1 (Figure 50) south of Ludgate Hill Road 1 near the Walbrook where the rectilinear building appears similar to timber-framed buildings in plan, but is in fact constructed of post-and-stake construction with wattle-and-daub panel walls woven *in situ*, similar to the other round buildings in the area (e.g. Sites 5 and 13) and representative of traditional, indigenous British construction technology used in a rectilinear Roman-style structure (Goodburn et al. 2011). The slight walls of post-and-stake structures would probably not have been sturdy enough to support a timber-beam roof, roof tiles, or shingles, let alone a second storey; probably posts and wattle weaving supported a thatch roof (Goodburn et al. 2011). Further evidence of indigenous building technology can be found farther west along Ludgate Hill Road 1, between and behind the new rectilinear buildings (Figure 43) that replaced the earlier round buildings at Site 13, where three new round buildings were constructed. They are relatively small (c. 3.0, 4.75, and 5.0 m in diameter) ancillary structures associated with external activities. These continued construction traditions, along with the wattle-work waterfront structure at Site 71 (Figures 14 and 34), and another earth-fast timber building, Site 22 Building 5 (Figure 62), indicate the presence of indigenous builders and inhabitants living on Ludgate Hill and working as labourers in the creation of the new developments, such as the waterfront structures.

Ludgate Hill building Site 22 Building 3 (Figure 50) had brickearth mass walls made of packed daub, and mud-brick walls were used in the next-door Site 22 Building 4. The evidence of mud-brick walls is otherwise rare on Ludgate Hill (Site 22 Building 4 and Site 22 Building 16: Figure 50) and found only in conjunction with other daub and brickearth walls in the same structure. Mud bricks are an Eastern technology, and the skills for producing them (i.e. people or information) may have been imported from the East; they were also common amongst the earliest structures at Nîmes and Narbonne in Gaul (Woolf 1998: 123). Mud-brick walls are more regularly found in the Cornhill planned core of the settlement (at least nine buildings at Sites 50, 51, 55, 67, and 75). Masonry (the aisled hall: Figure 52) foundations for such walls are only in evidence in the core area. The foundation portions of walls on Ludgate Hill were most usually integral to the wall construction, although one building may have had a concrete foundation (fragmentary remains of Site 30 Building A: Figure 46), and two others had walls that rested on a partly stone dwarf wall (Site 20 Building 5: Figure 43) and a tile-and-brickearth dwarf wall (Site 22 Building 3: Figure 50).

The occurrence of fired ceramic bricks (including *tegulae mammatae*) in construction, post-packing, floor, and debris deposits is attested in several buildings (Tables 16–18). Ceramic bricks were also found in external deposits, road contexts, and make-up/levelling layers, and their presence is more suggestive of secondary use and presence in quarried material (at least 42.7 kg on Ludgate Hill, 99.4 kg on Cornhill, 55.6 kg in Southwark, where information was available). Ceramic building bricks were sometimes used on Cornhill in a different way from sites on Ludgate Hill, where they were found only in post-packing, mixed in with floor material, or in the occupation and destruction debris. They occur in such contexts east of the Walbrook, but they also appear *in situ* lining drains and forming hearths. However, they are still so infrequent in walls that it can be supposed that walls were not constructed of ceramic bricks in the pre-Boudican period.

Table 16. *Ceramic bricks from Ludgate Hill Group 3 deposits*

Site no.	Building no.	Weight (rounded to nearest 0.10 kg)
20	B5*, B6*, B8*	20.2
22	B13	7.8
22	B3	0.7
22	B7	0.4
22	B8 ⁺	4.6 ⁺
22	B11*	0.5
22	B12*, B13*, B14*	0.9
22	B23*, B25*	0.5
22	B9*, B10*	0.2
23	B2	0.6
23	B4	0.6
26	BF	0.3
26	BG	3.9

* bricks found in destruction debris, could have formed parts of walls
⁺ 2.2 kg in wall

Unlike the diversity evident among construction techniques on Ludgate Hill and Cornhill, there was little variation in construction materials and methods in Southwark. The buildings there were mostly constructed with shallow slots for timber groundbeams with posts and stakes used for secondary walls. However, two buildings, isolated on the western side of the northern eyot north-west of Southwark Road 2 (Site 108 Building 2 and Site 109 Building 3: [Figure 60](#)), employed post-in-trench walls. Their physical separation and different construction methods are likely to indicate that their inhabitants had a different relationship to the central authority and social structure than those people living and working in buildings lining Southwark Road 1.

Table 17. *Ceramic bricks (including tegulae mammatae) from Cornhill Group 3 deposits*

Site no.	Building no.	Deposit type	Weight (rounded to nearest 0.10 kg)
38	B2	Occupation debris	0.4
41	B1	Destruction debris	0.3
47	B3	Floor, destruction debris	2.8
49, 55	B2=B1 (southern proto-forum building)	Destruction debris	2.3
50	B12, B14, B40	Floors, wall, post-packing, occupation debris, hearth, destruction debris	35.4
50	B40	Lining an internal drain	97.6
50	B37	Post-packing	0.1
51	B7	Hearth	0.7
51	B12	Wall, post-packing	2.7
51	B14	Post-packing	1.5
51	B16	Construction cut, occupation debris, destruction debris	5.6
51	B17	Floor, post-packing, destruction debris	2.1
51	B18	Hearth	0.1
51	B24	Construction cut, destruction debris	22.2
75	B1	Floor	0.5
84	B2	Construction cuts	3.2

Table 18. *Ceramic bricks from Southwark Group 3 deposits*

Site no.	Building no.	Deposit type	Weight (rounded to nearest 0.10 kg)
101/104	B1	Floor, hearth, occupation debris	4.1
101	B7	Construction cut, wall, occupation debris	6.2
101	B3	Wall	2.5
101	B5	Floor	7.0
101	B8	Floor	0.7
101	B1–B8	Destruction debris	32.9

Roofing materials

Roofs made of organic materials could have been reduced to burnt debris and roof tiles could have been recovered and recycled during the post-fire clean-up effort. Tiled roofs would have been strikingly different to the thatch or shingle roofs around them, and would have been meaningful symbolic markers in their expense and the link that the inhabitants wished to make to the Continental traditions they were attempting to emulate. Where botanical sampling has been undertaken, the evidence supports thatched roofs: the destruction debris of Site 22 Building 11 (Figure 50), for example, contained a large number of the flowering heads of rushes (Davis 2011). *Tegula* and *imbrex* roof tiles in the destruction debris and on floor surfaces of buildings have been found in small quantities (Table 19), while the presence of other roof tiles (at least c. 94 kg on Ludgate Hill, 146.7 kg on Cornhill, 113.8 kg in Southwark, where information was available) in the make-up dumping or construction features of buildings, hearths, and drains, and in external deposits on roads and in yards, indicates that tiles were available for disposal or reuse.

Nowhere does the number of roof tiles represent the quantity that would be necessary to represent even a small area of roof. However, small amounts of roof tile in the destruction debris and above the floor surfaces of structures may represent the remains of an originally tiled roof destroyed or dismantled and the tiles reused or recycled. While the overall amounts are often minuscule, it is problematic to form an arbitrary line at which an amount is deemed significant, because the quantities at all sites are relatively low. Even the 14.4 kilograms from the eastern half of the southern proto-forum building or the 31.9 kilograms from the aisled hall (Figure 52) could not represent more than small parts of the roofs of those very large structures. The types of wall construction associated with buildings that may have had tiled roofs were all founded on timber groundbeams, on timber piles, or with a stone dwarf wall. No exterior walls of post-in-trench or simple post/stake construction were associated with evidence of tiled roofs. The pattern suggests that the roofs of

Table 19. Evidence of tiled roofs in the form of *tegula* and *imbrex* tiles in destruction debris and/or on top of floor surfaces

Site no.	Building no.	Weight (rounded to nearest 0.10 kg)
20	B1, B5, B6, B7, B8	5.8
22	B11	12.6
22	B12, B13, B14	28.8
22	B16	0.7
22	B23, B25	3.3
41	B1	0.7
47	B3	0.6
49, 55	B2=B1 (southern proto-forum building)	14.4
50	B12, B14, B40	31.9
51	B13	0.1
51	B7	0.3
51	B16	2.9
51	B17	0.3
51	B24	3.9
56	B1	0.8
73	B1	0.5
75	B1	0.1
79	B9	2.1
101	B1–B8	48.8

some timber-framed buildings could have been partially tiled, especially on Cornhill, while other types of construction would have had thatched roofs. Roof tiles were also reused for secondary purposes, and were present in the areas where people were quarrying brickearth for building.

Decorations and embellishments

The social values and associated behaviours related to the display of wealth and status are often interpreted archaeologically through particular types of buildings and decorations (e.g. Perring 2005). There are no buildings in pre-Boudican Londinium that could easily be understood through an analysis of such symbolic spaces as large reception rooms, *atria*, peristyle courtyards, wall paintings, or mosaic floors, as existed in other first-century urban centres in Gaul, such as Samarobriua (Amiens) (Bayard and Massy 1983: 114–26; Woolf 1998: 124). Whether the population did not value such

Table 20. *Coincidence of various architectural features found either in situ or in destruction debris in Cornhill buildings*

Site no.	Building no.	Roof tiles	Ceramic bricks	Plaster	Keyed/impressed daub or brickearth walls	Timber floor	Gravel floor	Other, decoration
41	B1	X	X					
44	B4, B5			X				
47	B2					X		
47	B3	X	X					
49, 55, 67	B2=B1, the southern proto-forum building	X	X	X	X			
50	B12, B40	X	X			X	X	<i>Tesserae, opus signinum</i>
50	B14	X						
50	B37					X	X	
51	B7	X	X					
51	B12		X					
51	B13			X				<i>Opus signinum</i>
51	B14							
51	B16	X	X		X	X		
51	B17	X	X				X	
51	B18		X					
51	B24	X	X		X	X		
56	B1	X				X		
56	B2						X	
56	B12						X	
67	B5, B6			X				
73	B1	X				X		
75	B1	X			X	X	X	
79	B9	X			X			
84	B2			X			X	

things or were financially unable to acquire non-essential architectural extras is difficult to discern archaeologically. Where decoration was employed, albeit in a modest fashion, it must have been important and symbolic to the occupants by establishing a link between their dwellings and high-status buildings characterised by the system of symbolic materials associated with embellishment. The occupants of Londinium may never have seen elaborately decorated walls and floors; but that does not mean they did not know they existed and what they symbolised. The occupants would have been part of the culture that shared an understanding of potent visual and material symbols of wealth and status.

On Ludgate Hill three buildings may have been decorated with painted plaster: one at the eastern end of Ludgate Hill Road 1 (Site 22 Building 13: [Figure 50](#)),

one at the western end of Ludgate Hill Road 1 (Site 20 Building 8: [Figure 43](#)), and one near Ludgate Hill Road 7 (Site 3 Building 1: [Figure 45](#)). The absence of plaster in all other buildings' use and destruction contexts suggests that plaster was uncommon. Keyed daub was found in association with the painted plaster at Site 20 Building 8, perhaps as a preparation for the application of plaster, or perhaps as a decorative finish in its own right. All three of the buildings with evidence of painted plaster walls also have evidence of ceramic tiled roofs ([Table 20](#)).

Painted wall plaster was also noted in association with at least seven Cornhill buildings: Site 44 Buildings 4 and 5 ([Figure 56](#)), Site 51 Building 13 ([Figure 54](#)), all three buildings east of the proto-forum ([Figure 52](#)), and Site 84 Building 2 ([Figure 57](#)). The only one of these

buildings with evidence of a tiled roof is the southern proto-forum building. Keyed daub and keyed brickearth have been found in possible tiled-roof buildings north of Cornhill Road 1 in the southern proto-forum building, Site 75 Building 1 (Figure 52), Site 51 Buildings 16 and 24 (Figure 54), and Site 79 Building 9 (not illustrated; see site location on Figure 31 and approximate location of building on Figure 40), and brickearth rendering impressed with a herringbone pattern adorned some walls in another part of the southern proto-forum building.

South of the Thames no buildings bore plaster walls, keyed daub, or any other kind of decoration. This paucity cannot be ascribed to a lack of data because building-material data from seven sites were available to the analysis here. This pattern fits well with the relative smaller size of the buildings in Southwark, and together can be taken to indicate a separate community with different cultural values and position within the town.

The association of painted plaster walls and roofing tiles is significant, these features are among those associated with Continental Roman buildings, imported value systems, and conspicuous consumption. The association between keyed and impressed daub/brickearth and tiled roofs is also intriguing, and may be part of the same pattern. While they are not in the same status category as imported marble, floor mosaics, lavish reception rooms, and other features of high-status and public buildings elsewhere in the Empire, the relative rarity of these more modest decorative materials in early Londinium, their function as an embellishment, and their possible connection to high-status Continental buildings supports the symbolic value of these features as status indicators. The association between tiled roofs and between these different forms of decoration, both east and west of the Walbrook, but completely absent in Southwark, is clear and signifies that they were all part of a cohesive symbolic system, probably for demonstrating wealth, status, and a shared group identity.

Floors

Most buildings had brickearth, timber, or gravel floors; the brickearth floors would have been covered with rushes, which is suggested by such botanical evidence as

was collected from Site 22 Buildings 7 and 23 (Figures 49 and 50) where reeds such as spike-rush, rushes, and sedges were found to cover the floors (Davis 2011). Timber floors required prepared timber or skilled carpenters and would have been associated with the Roman method of producing timbers rectangular in cross-section for both the planks and the joists. Timber floors occur in six buildings on Ludgate Hill with no evidence of decoration, tiled roofs, or hypocaust heating tiles (see Table 20), and in one building with no decoration but with a possible tiled roof. Of the eleven buildings partially fitted with timber floors on Cornhill, eight are among those that may have been tile-roofed and two were decorated with keyed daub/brickearth (at Sites 51 and 75). There does not seem to be a link between timber floors and other status indicators, although timber floors and tiled roofs may have been more common on Cornhill than Ludgate Hill.

Other flooring methods indicate that the surface needed to be hardened, perhaps in relation to the industrial function of a room: on Ludgate Hill, gravel (Site 16 Building 11: Figure 48; Site 22 Building 16: Figure 50) and potsherds embedded in clay (Site 22 Building 2: Figure 49) were used to create hard floor surfaces. The aisled hall (Figure 52) also had possible *opus signinum* or tessellated floors (not *in situ*), a gravel floor, as well as a floor made of limestone and ragstone rubble mixed with brickearth underlying a surface of brickearth. Perhaps, like the gravel floors found in rooms at other Cornhill sites (Site 56 Buildings 2 and 12: Figures 55 and 56; Site 75 Building 1: Figure 52; Site 84 Building 2: Figure 57), this preparation was meant to harden the floor for a special use. The unexcavated, plaster-adorned Site 51 Building 13 north of Cornhill Road 1 also had evidence of an *opus signinum* floor. South of the Thames most floors were made of brickearth, clay, or beaten earth and possibly covered with mats or rushes. One building had a timber floor in part (Site 101 Building 7: Figure 59), and another had a rammed floor of clay packed with amphora sherds (Site 116 Building 1, Figure 59). A single piece of *opus spicatum* from the destruction debris at Site 101, while

intriguing, is hardly sufficient evidence for the presence of an entire floor.

The different types of floors probably indicate that rooms were used for diverse purposes from industrial uses to commercial purposes and domestic quarters. The use of different forms of floor surface within a single building supports this interpretation. Identifying which floors were associated with which purposes is difficult, although it is likely that the gravel and hardened floors were used for industrial purposes or in rooms with more frequent use susceptible to wear.

Hearths

Buildings were probably all heated by (and food cooked on) open hearths and hearths with brickearth surrounds. Most are present archaeologically in the form of a charcoal-rich area of burning or reddened brickearth, sometimes in a small hollow and/or lined with potsherds or tiles, usually built up against a wall of the building and often associated with stakeholes indicating hearth surrounds or pot-stands.

On Ludgate Hill one building had an internal hearth associated with a hardened floor surface (Site 22 Building 3: [Figure 50](#)), another with a timber-surrounded working hollow (Site 23 Building 4: [Figure 44](#)), one that was amphora-lined (the third hearth in Site 22 Building 3), and one that might have been an oven was semi-circular, constructed of tile and brickearth (at Site 5 Building 3: [Figure 48](#)). Such hearths probably had particular functions related to special activities (the assemblages are discussed in [Chapter 5](#)). External hearths have been found in the yards of four buildings on Ludgate Hill (at Sites 13 and 22), although others probably existed. One external hearth was constructed in a bowl-shaped concavity out front of a small ancillary shed (Site 22 Building 9: [Figure 50](#)) that was equipped with a drain carrying waste water away down the side of and behind the building.

The internal hearths in structures on Cornhill were all represented archaeologically by simple areas of burning, sometimes in shallow depressions, although one hearth was constructed of a horseshoe-shaped brickearth surround (the short-lived Site 50 Building 11, not

illustrated), and stakeholes found in association with other hearths suggest that superstructures were employed to hold vessels or foods over the flames. External hearths were also present and may have had industrial functions; one ([Figure 52](#)) appeared to be designed to provide interior heat because it was constructed against the exterior of a wall of one of the earlier, possibly industrial, buildings at Site 50 (in use before the construction of the masonry-founded aisled hall).

Hearths are well represented in Southwark, with nearly half of the excavated buildings retaining evidence of either internal or external hearths. Two internal hearths, in different structures, were lined with amphora fragments (at Site 101 Building 5 and Site 101/104 Building 1: [Figure 59](#)), and two external hearths, probably ovens, were found associated with bricks, suggesting that they originally had brick superstructures (at Site 101).

Ceramic tiles associated with hypocaust heating have been found in very small numbers on Ludgate Hill and in Southwark (e.g. voussoir and flue tiles in ground-consolidation/roadside dumps at Site 118), but not *in situ* or in destruction debris, suggesting that no such heating systems were employed. On Cornhill, tiles associated with hypocaust heating systems, in very small amounts, were also found in association with the large southern proto-forum building as well as in make-up and external deposits at Site 50, but none *in situ*. It is most probable that open hearths were the only method of heating and that specialised and sophisticated heating systems did not form a part of the creation and reflection of social identities.

Drainage

Evidence of drainage and the removal of surface and waste water survives in the form of drains and ditches associated with roads and structures, important for the structural stability of buildings as well as to maintain dry and functioning yards.

On Ludgate Hill there is excellent evidence for drains and ditches in yards associated with buildings at Site 22, near the Walbrook. One timber-lined drain carried cess away from Site 22 Building 11 ([Figure 50](#)), indicating the presence of a latrine, while other drains ran parallel to

buildings, one in the narrow gap between Site 22 Building 23 and Site 22 Building 25 (Figure 50). At other sites (at Sites 2, 13, and 20) ditches associated with secondary buildings seem to provide drainage for structures. The drains in yards and along secondary roads east of Ludgate Hill Road 3 at the crest of the hill would have funnelled into the roadside drains along Ludgate Hill Road 1 and downhill east to the Walbrook. West of Ludgate Hill Road 3, where the hill began to slope down to the west, they probably drained into the Fleet. Ten of the structures with drains integral to the structures are located close to the Walbrook crossing, suggesting that the drainage may have been more connected to drying the marshy land than to removing cess and waste water from the buildings.

On Cornhill there are at least six examples of drains that were directly associated with draining waste water away from buildings (at Sites 49, 50, 51, 56, and 71), three of which were timber-lined. These drains probably ran into roadside ditches along Cornhill Road 1, leading to Cornhill Road 3, and eventually drained downhill to the south, into the Thames. A timber-lined box drain was positioned against the northern wall of the southern proto-forum building, probably to drain waste water from the building into the roadside drain of conjectured Cornhill Road 11, and the sloping drain associated with a partly open-sided building Site 51 Building 14 (Figure 54) probably drained waste water away across the metalled yard. A V-shaped ditch was associated with the destruction of Group 2 buildings and the construction of a new Group 3 building at Site 79 (not illustrated; see site location on Figure 31 and approximate location of building on Figure 40), perhaps indicating that the land needed to be drained prior to new construction. The most substantial drain was the brick-lined example at Site 50 Building 40, within the building attached to the west of the masonry-founded aisled hall (Figure 52). The drain was formed of horizontally bedded bricks and *tegulae mammatae*, and its cap was packed with limestone, tile, and brickearth fragments. It led away from an internal room and its fill was determined to have a high cess content (Williams forthcoming), indicating that it was a latrine. The vast majority of buildings, however, have no

evidence of latrines, and presumably chamber pots and external areas were used elsewhere.

The collection and distribution of fresh water is difficult to assess as there was such a plethora of fresh spring water available between the brickearth and the underlying gravels. People could have collected water directly from the streams upstream of the occupied area. Wells and wooden pipes suggest that supply measures were in place, but they are found only in a few locations and were probably specific to each property and organised by individuals. The wooden water pipe with an iron collar at Site 67 (Figure 52), running between the north side of Cornhill Road 1 and the southern proto-forum building, suggests that there could have been a pressure water system involving a local raised tank and wooden pipes. This is the only area where such piped water is in evidence, and elsewhere wells seem to have been used. In a later period a chain system of wooden buckets attached to a pulley was used to collect water from a deep well (Blair et al. 2006), but in the pre-Boudican period it appears that most people were responsible for building wells in their own yards, using recycled barrels or wattling to line the well. The different form of piped, pressured water distribution north of Cornhill Road 1 east of the proto-forum suggests a degree of sophistication and the status of the structure.

Public or high-status buildings?

There are three buildings that stand out as possible high-status or public buildings: the two largest – the southern proto-forum building and the aisled hall (Figures 51 and 52) – and an apsidal building with a complex substructure suggesting it could have had a masonry superstructure, Site 37 Building 1 (Figure 34).¹¹

¹¹ A possible courtyard-plan building was excavated at Site 79, but no phased site report was ever produced and no illustrations were available in the LAARC archive. If this building were, in fact, a courtyard type, it would certainly be dramatically different from all other excavated examples known.

Buildings east of the proto-forum

The southern proto-forum building (Figures 51 and 52) measured around 53.1 metres long plus a roughly 2.2-metre-wide veranda by 9.75 metres wide plus a 3.9-metre-wide veranda.¹² It was supported, in its earliest phase of construction, partly on timber piles at the base of wide, deep trenches (0.61 m wide $\times$ 0.46 m deep) supporting timber ground beams, like the two buildings to its north. These foundations were also augmented by a corner post supported on a Kentish ragstone block¹³ underlain by a ragstone-and-mortar base. In the second phase of construction the northern wall was rebuilt and a veranda added. This new northern wall was constructed with a clay-and-timber-lined foundation trench (0.68 m wide $\times$ 0.28 m deep) filled with brickearth or clay slabs (not mud bricks) supporting a timber baseplate on which the mud-brick wall with timber shuttering and daub was built. Other mud-brick walls in the same structure were founded on trenches (0.56 m wide $\times$ 0.63–1.08 m deep) filled with mortar-bonded flint nodules and pebbles, with occasional tile and ragstone fragments. The internal walls were clay-and-timber partitions supported by groundbeams.

The two smaller buildings to the north were of the same construction, and appear to have been planned together as one complex of structures. Both northern buildings had sunken semi-basements, a fairly rare feature in Roman Britain, although sunken-floored buildings have been found in the agricultural settlement of Monkton in Kent (Millett 2007b: 152). The sunken areas could also have been semi-basements lying underneath a timber floor. The relationship with a possible internal storage pit in the northern building suggests that the sunken floors

were somehow related to storage. A huge deposit of burnt grain, mostly spelt wheat, was excavated in the eastern part of the southern proto-forum building (Straker 1987), and it also had two internal pits, possibly related to storage.

Contemporaneous *Insula XIV* in Verulamium (Frere 1972) contained a timber-framed block of buildings that shared a straight, long front wall and internal walls with entrances from the shops/workshops opening onto Watling Street. No entrances have been excavated in the southern proto-forum building, although it is possible that the individual rooms opened onto the veranda and road, like a barracks or a row of shops/workshops. The entrances could also have been at the short ends near the proto-forum at the west and the conjectured road to the east (Cornhill Road 11). The rear of the block of *Insula XIV*, however, was not composed of a single, straight wall, like the southern proto-forum building. The arrangement at Verulamium indicates that there were several individually constructed, joined buildings in *Insula XIV*, with the gable ends facing onto Watling Street, unlike a military barracks (*contra* Frere 1972; see Millett 1990). The southern proto-forum building, contrastingly, was a single, rectangular building with internal partitions (that changed even during its short life before the Boudican fire). The long walls were single, joined, solid walls and so it would be inappropriate to compare it to the shops and workshops in *Insula XIV* (*contra* Marsden 1980: 23). Similarly, the timber-framed clay-and-wood building No. 2 at Waldgirmes (von Schnurbein 2003: 100, fig. 6) resembles attached buildings with a straight, shared façade line and uneven back walls, with units constructed separately.

The southern proto-forum building is also not similar to post-in-trench military structures like those found in the fortresses at Camulodunum or Glevum, although barracks are often of a similar size and shape with a veranda along the long side. The barracks at Camulodunum were constructed of mud-brick walls on mortar-and-stone plinths overlain by a timber plank (Crummy 1988), which is, however, somewhat comparable to the mortar-bonded, flint-nodule-filled foundation trenches

¹² Measurements to outsides of walls from small-scale published plans from the three different sites, which were scanned, geo-referenced, and traced in AutoCAD. Marsden (1987: 20) gives the overall measurements of this building as 56.5 metres long and 14 metres wide. Error in published plans, scanning, placing, and tracing these buildings could have resulted in the discrepancy.

¹³ There is no stone from London itself; Kentish ragstone comes from near modern Maidstone near the River Medway (Marsden 1980: 60), roughly halfway between London and Canterbury.

supporting mud-brick walls found in part of the southern proto-forum building.

Timber framing allows for considerable prefabrication, and there are several long, rectangular buildings divided into rooms from the early Roman period in Britain that functioned as components of larger complexes and probably represent the same method of construction. For example, the pre-Flavian Courtyard Building at Calleva (Fulford and Timby 2000: fig. 27) – which also underlies the later forum and basilica, as at Londinium – was a timber structure measuring approximately 55×10 metres. The structure was composed of two long walls forming a rectangle with internal partitions dividing it into ten rooms, fronting onto a gravel area underneath a post-supported veranda. Like the southern proto-forum building it had large foundation trenches about 0.5–0.7 metres wide and 0.3–0.9 metres deep, although these were also used for internal construction with clay walls, into which were placed timber uprights at intervals of 0.8–0.9 metres with clay walls 0.16 metres thick. To its north, Building 1 seems to form a side wing of a complex of buildings facing onto the gravel courtyard. The early Flavian two-winged structure in *Insula* IV at Rutupiae is also similar to the southern proto-forum building, being composed of long rectangular portions divided into differently shaped internal spaces (Cunliffe 1968: fig. 28), very much like the pre-Flavian (Period IB) Building 5 at Fishbourne (Cunliffe 1971: fig. 16), which does not have a second wing and is of comparable size to the Londinium building. The contemporaneous Eccles villa is also made up of one long, narrow rectangular building with internal divisions (Millett 2007b: fig. 5.10).

Although they bear some similarity in plan to barracks, there does not appear to be a causal relationship between the military and these types of buildings in civilian contexts; rather, there was a common system of standardised timber supply that allowed for rapid building in adaptable, modular, forms. The civilian contexts of such buildings demonstrate that the architecture need not be military directed, although influence in common techniques clearly passed between military and civilian builders, as was so clearly demonstrated at Waldgirmes.

This structure is also similar to the contemporaneous Neronian proto-forum wood-and-cob structures at Samarobriua, used to store oil lamps, in part, where at least three wings of structures faced onto a gravelled courtyard underlying the later forum buildings (Bayard and Massy 1983: 74–5, 77, fig. 24a). Like at Calleva, these early timber forum structures demonstrate the desire of the people, perhaps the *civitas* administration, to building civic centres similar to those found in urban centres in other parts of the Empire, but using locally available materials (Woolf 1998: 123). Unlike the structures at Calleva and Samarobriua, the southern proto-forum building at Londinium does not focus inward onto a gravelled courtyard area or central space, but rather onto the main road with the gravelled courtyard to its west. Perhaps Cornhill Road 1 acted as the main public space of the town even though the local elite were trying to create an artificial public square in the gravelled proto-forum area. The Londinium building did not have a side wing and face onto a space to its north, as there are two parallel structures there and the proto-forum was to its west. It is, however, likely that the building did function together with the gravelled area and that it was somehow related to the later forum structures.

There was evidence for blacksmithing, ironworking, and possibly brass-working in the structure at Calleva (Fulford and Timby 2000: 566), while there is evidence for grain storage in the Londinium structure. Interestingly, some of this grain was imported although most of it was spelt wheat, which probably derived from Britain (Straker 1987; Williams forthcoming).

Because of their apparent use for storage of grain and other commodities demonstrated by the sunken basements, possible storage pits, and large quantity of remaining grain, it is somewhat unlikely that any of these three buildings served as part of a civic administrative complex, such as a *tabularium*, where city archives and charters would be kept (Hassall 2003). The buildings were not raised-floor granaries, such as are found in Richborough and Fishbourne, indicating that the grain storage here was short term and part of a continuous, organised supply chain whereby grain was grown and processed

outside the city and clean grain was stored and distributed/sold within the town to local millers/bakers for the production of bread for the people (see also [page 118](#)).

The dominating size of the building and its association with two other similar structures and the monumental proto-forum area does suggest a possible public function. In a non-agricultural community the administrative authority (whether a group of leading merchants, *civitas* administrators, or others) would possibly have organised the purchase/importation of grain to feed the large population. This building could be evidence that the acquisition and distribution of grain was controlled and regulated by a central authority and based in this large building.

A possible aisled hall

Across the street, the aisled hall¹⁴ (measuring c. 19.0 m wide × 13.4 m deep in the first phase and perhaps as much as 21.6 m deep in the second, to the outsides of the walls) was erected on the site of a block of three dismantled timber structures that had shared a yard with a huge industrial pit (see [Figures 51 and 52](#)). In its first phase the new structure was a masonry-founded building with clay-and-timber internal partitions, and in the second phase a front porch was added. It is not likely that the two extension projects (the addition to the aisled hall and addition of a veranda and rebuilt north wall of the southern proto-forum building) were contemporaneous or related in any way, because the latter was fully completed and in use at the time of the Boudican fire and

the former was still under construction in AD 60/61. This building was constructed with masonry walls supported by gravel-and-mortar-banded foundations 0.8 metres wide. Along the northern wall of the first phase, facing the street, buttresses measuring 1.0 by 0.3 metres were set at intervals of 1.8 metres (c. 6 *pedes*), for supporting decorative pilasters as opposed to a roof, because they were only present on the northern wall. The interior of the structure had gravel-and-mortar piers to support the roof, two rows of six that did not align with the five buttresses along the front of the building. The tile-lined latrine within the attached building to its west (Site 50 Buildings 40 and 14: [Figure 52](#)), might have been accessible from the interior of the aisled hall through a western doorway, but there is no evidence for such a connection.

This building is similar to one of the possible public buildings in contemporaneous Colonia Claudia, a large building with fluted stucco columns in *Insula* 30 (Crummey 1985: 78, 1988: 42). It is also similar in size and plan to several examples of aisled hall buildings, for example at Thurnham Roman villa (Millett 2007b: 154, fig. 5.12) and Fishbourne (Cunliffe 1971: 108, fig. 29). Aisled buildings, like basilicas, had their entrances along the short axis wall; the small niche in the western wall of the aisled hall could suggest that its entrance and façade were on the eastern wall facing onto Cornhill Road 15 and that the niche was a focal point along the facing wall. However, it does not seem to be the case because of the elaborated façade of engaged columns on the north wall and the addition of the large porch in the second phase, both of which would support an entrance facing onto the gravel forecourt and Cornhill Road 1. Other aisled buildings (see also Hadman 1978) are large public halls that exist within a complex of buildings, such as the near-contemporaneous example at Fishbourne, and later examples at Norton Disney (Oswald and Buxton 1937: pl. XLV) and Rockbourne (RCHM 1983: facing 130, fig. 2). Although the aisled hall is in an urban context it is possible that it served a similar purpose as a public hall commissioned and maintained by an elite individual or group for the purposes of display and communal gatherings. Its proximity to the southern proto-forum building

¹⁴ Hammer (1987) phased this building as later (see also Creighton 2006), but as Williams (forthcoming) shows through the much-improved reinterpretation that he and Ken Steedman have undertaken of the phasing, along with the dating evidence provided by Davies in the same volume, the building is pre-Boudican although little affected by the fire. Davies (in Williams forthcoming) believes it is possible that phase 2 (see [Figure 52](#)), the addition of the northern porch, could be later, but its date is only suggested by the presence in the construction levels of a fine micaceous beaker with barbotine decoration more common in the period AD 60–70/80. This fabric and decoration were produced first around AD 50 and present in several other pre-Boudican contexts across Londinium and, as there is no distinctly Flavian-period material from the construction levels, phase 2 is included here as pre-Boudican, but clearly under construction at the time of the fire.

could indicate that these two large buildings were public in nature and that this zone of the settlement, the important crossroads area, was where the local powerful authorities and elite of the town were directing their civic munificence, prior to constructing lavish private dwellings, as was a typical pattern in earlier urban centres in Gaul (Woolf 1998).

Apsidal building

An apsidal building (Figure 34) has been hypothesised based on the arrangement of wooden piles at Site 37 (Swift 2008). It is likely to have been a masonry structure because of the extensive piles required to support its weight. It was not large, perhaps around 6.0 metres externally in the rectilinear section, but was associated with a huge 2.5-metre-wide chalk-and-flint terrace wall supported on wooden piles (dating to the winter of AD 54/55 or later). The apse faces towards the river, which suggests that the entrance to the building opened onto Cornhill Road 4 to the north. None of the superstructure of the building remained, and finding parallels with pile-supported structures would indicate more about the ground stability than about the function and significance of the building. Apsidal buildings are rare in domestic architecture, but frequently occur in communal complexes of buildings, such as the bath complex at Durovernum (Blockley et al. 1995: 4, fig. 2; Millett 2007b: 157, fig. 5.15). Apses are indeed characteristic of baths (MacDonald 1986: 215), but this small excavated area allows little else to be said about the overall plan and function of this building. There is, however, a later bath complex known by the waterfront in Londinium, the Flavian Huggin Hill baths (Rosome 1999) found further west, which had five apsidal rooms.

There is further circumstantial evidence for possible monumental stone structures in the pre-Boudican period. At Site 71 a large architectural coping stone with partially finished carving measuring approximately 0.75 metres long by 0.848 metres wide by 0.337 metres high was excavated in the intertidal zone, probably indicating that it was lost during unloading from a ship (Pringle and

Samuel forthcoming). Although the superstructure of the apsidal building was completely dismantled, this stone is evidence that large masonry structures were either built or planned. It is possible that the apsidal building was never completed because its construction was interrupted by the Boudican Revolt.

Large, possibly public, buildings of mid-first-century date were uncommon in many contemporaneous towns. At Oppidum Batavorum, for example, there are no mid-first-century public buildings yet known (Willems and van Enkevort 2009: 21) and the first monumental structure in Durovernum is the theatre, which dates to around AD 80–90 (Frere and Simpson 1970; Millett 2007b: 158). The explanation for the lack of public buildings could, therefore, be chronological: it often took two generations to build the street grids and suite of public buildings that characterised Gallo-Roman towns (Woolf 2000). That Londinium was destroyed after only a decade of occupation may be to account for the incomplete plan and the lack of a theatre, baths, temple, and forum structures. These three structures do, however, suggest that the inhabitants could have been planning public buildings and monumental spaces for the town, on the model of Gallo-Roman towns. As the construction methods and arrangements are diverse and somewhat unrelated, it does not seem that these plans for construction were part of a ‘programme’ decided and planned by a central group, but rather that they were the product of individual munificence and demonstration of wealth and status within the community.

The town was probably brought together by activities held in the tile-roofed communal aisled hall with its monumental façade of engaged pilasters. Such events were probably organised and paid for by the local elite, a social group that could have been formed of wealthy and powerful immigrants perhaps from places in Gaul such as Reims, or of local elite, perhaps from the *civitas* of the Cantiaci. The public hall was used for dining with imported ceramic and glass vessels, by light provided with oil lamps. At other times it might have been an administrative centre, as is demonstrated through the presence of writing implements (see Chapter 5). Across

the street there was a complex of multi-functional buildings, the southernmost of which was similar to many long, rectangular, modular structures around the province and in Gaul, especially those associated with pre-Flavian proto-forum areas. It possibly functioned as a large market, with a grain store at one end, and other storage elsewhere in the complex, facing onto the proto-forum at the western end. There was also some lead or copper working undertaken in or near this building as well as activities requiring writing, probably associated with trade and long-distance communications. Soldiers and/or veterans were among those who used, visited, or worked in the building. There too food and drink consumption activities were dominant, which indicates that it held a wide variety of functions (see [Chapter 5](#)).

THE STRUCTURE OF THE SETTLEMENT

Evidence of planning

The new roads on Ludgate Hill and in Southwark bear some resemblance to ‘small towns’ that originated as roadside ribbon development focused on an important road (e.g. Wall, Hibaldestow, and Kentchester: see Burnham and Wachter 1990: 23–5) and some resemblance to *vicus* settlements (e.g. extramural Caerleon: see Evans 2000: 492–3), the populations of which placed less importance on a street grid (Drinkwater 1985). These two settlement areas are both focused on the primary roads, Ludgate Hill Road 1 and Southwark Road 1, with ribbon development alongside them. The placement and relationship of the secondary roads is also similar, diagonally leading away from the crossing points (i.e. the Walbrook crossing (Ludgate Hill Road 6 and, possibly, Ludgate Hill Road 7) and the Thames crossing (Southwark Road 2)), alley-like roads providing access to back yards, and roads connecting subsidiary habitation/activity areas back to the main road.

The deviation in alignments, particularly along Cornhill Road 2, is perhaps simply a result of areas not subject to planning; social explanations for why people would choose to cant their buildings slightly from the edge of

the road are likely to be subtle and complex. The construction techniques of these buildings do not vary greatly from those used in the central part of the settlement, and so a lack of care or skill cannot be the explanation. A social explanation, stemming from the reasons that people originally chose (or were forced) to settle in these areas outside the settlement is preferable: perhaps rejecting the orthogonal planning that was so characteristic of the grid was a way of rejecting the administrative authority and subverting the overarching system of planning within the settlement. The earlier development suggested that some people, including indigenous British people, chose (or were required) to live outside the grid-planned area, and that their choices do not necessarily mirror the dense occupation and development in the planned core.

The Cornhill contrasts strikingly in its orthogonal and possibly symmetrical grid-planned core, which more resembles a surveyed urban centre (perhaps only in the planning stages), albeit on a rather small scale and probably unfinished, of the tradition in the Roman world originating in grid-planned towns such as Cosa in the third century BC and other later centres in northern Italy, and across the provinces. In the nearby province of Gallia Belgica there were several grid-planned towns in existence in the mid-first century AD that were constructed in areas of sparse habitation in the pre-Roman period, such as Samarobriua, Oppidum Batavorum, and Oppidum Ubiorum (Bayard and Massy 1983; Carroll 2003; Gros and Torelli 1988: 299–325; Reece 1985; van Enckevort and Thijssen 2003; Willems and van Enckevort 2009).

It has already been noted that some scholars (e.g. Perring 2011) suggest that the orthogonality of the plan derives from an original Claudian military camp, defined by ditches, pointing to the profiles and arrangements of some of these ditches to suggest a defensive function. The evidence encourages a re-evaluation of the significances of ditch shapes and arrangements and their relationships to the function of the feature. The features mentioned are inconclusive in determining function. A V-shaped profile is not universally associated with military ditches, as many LPRIA ditches also bore the same profile (e.g. as

in the Verlamion area: see Niblett 2001) and the ‘ankle-breaker’ could very easily be an artefact of the removal of sediment from the base of a steeply sided ditch or the result of later cleaning. Furthermore, there is evidence that other ditch profiles were employed by the army: Caesar (*Gallic Wars* 7.73–80) noted that steep-sided, flat-bottomed ditches – such as the double ditches at Site 22 and one ditch at Site 20 – could be used for defence. Moreover, the pre-Boudican ditches in Londinium are narrow and shallow in comparison to known defensive ditches elsewhere. The contemporaneous ditches surrounding the fortress at Camulodunum, for example, measured 4.5–5.7 metres wide and 2.4–2.5 metres deep (Crummy 1984: 31, 93), those at the Neronian legionary fortress at Gloucester were more than 3.0 metres wide and 2.5 metres deep, and the collection of data produced by Jones (1975: 117) determined that such ditches fell within a width range of 2.4–7.6 metres and had depths of 1.2–2.7 metres. In Londinium itself the post-Boudican fort ditches at Site 51 were 7.0 metres wide and 1.3–1.9 metres deep. The pre-Boudican ditches also lack a berm or rampart, as can be seen at the fort at Site 51 and at Camulodunum, which cannot be wholly dismissed as the result of truncation in later periods: the earthen banks at Sites 41 and 117 survived, as did several other positive features. Furthermore, double ditches are also known in road-building, drainage, and boundary contexts at Sites 20 and 54 (road drainage), 22 (road planning and possible drainage), and 72 (a cemetery boundary).

The double ditches at Sites 48 and 87 underlay Flavian roads and appear to have been a way of planning, claiming, and preserving the line of the future roads in an earlier period. Such possible planning of roads with double ditches is also in evidence at Site 22 on Ludgate Hill where the later road (Ludgate Hill Road 6) was built on top of one of the filled ditches with an intervening layer of deposition used as a trackway.

There are no direct parallels for the reconstructed plan as presented here. The hypothetical planned area in Londinium is only one ‘insula’ in width between Cornhill Road 1 and Cornhill Road 4, although the northern side of Cornhill Road 1 and the southern side of Cornhill

Road 4 were both also part of the occupied area. This grid of streets is considerably smaller than many other places, covering an area measuring only about 542 by 133 metres, compared to, for example, Colonia Claudia (see page 98, below, for more on occupied area). The Cornhill waterfront zone and development north of Cornhill Road 1 exist outside the main grid plan; the occupied area, measuring approximately 330 metres north to south, is not defined by the grid, but rather by the boundary ditches surrounding the cemetery at Site 72 on the northern side and by the Thames on the southern.

A variety of difficulties stemming from methods of ancient surveying and modern archaeological measuring makes the discussion of planning in Roman feet problematic, including the fundamental assumptions that whole units and round numbers within a metrological system were used (Duncan-Jones 1980; Millett 1982). It is possible to compare the two types of Roman feet in early Londinium – the *pes monetalis* (PM) and the *pes Drusianus* (PD) – converted from metres within a margin of error of, perhaps, 100 millimetres.¹⁵ *Mensores* probably used the *decempeda* iron-and-wood rod of 10 Roman feet (Dilke 1985: 9). Because we have the positions of two streets (Cornhill Road 8 and Cornhill Road 9) located archaeologically at their intersections with Cornhill Road 1, one of which is the final eastern street of the grid (Cornhill Road 8), and the position of the central approach road to the middle of the grid (Cornhill Road 3) is closely estimated, it is possible to discuss the planning of the street grid fairly robustly¹⁶ (Figure 66).

¹⁵ Millett (1982) and Frere (1977) assumed 75 millimetres as their margin of error when measuring directly from original drawings. Errors could be introduced into the measurements provided here at no less than five stages in the process of producing plans for this project: during the taking of original measurements in the field recorded either on paper or using a total station; during the first digital drawing done by the excavators (which may also have involved scanning paper drawings); printing those drawings onto paper for the production of the report; scanning of the paper printouts of those drawings which were made available to me; and the second digital tracing in AutoCAD to make the maps for this project. 100 millimetres would be a reasonable margin of error.

¹⁶ Although only the eastern edge of Cornhill Road 9 is definite and the other roads could be 1–2 metres in either direction, measurements in Roman feet can be estimated based on measuring in AutoCAD from the digitised versions of illustrations included with the draft report of Site 51,

There are no patterns of whole-unit round numbers in the PD measurements, but there does appear to be a pattern based on *insulae* measuring approximately 300 PM wide and 450 PM long. The overall length from the centreline of Cornhill Road 3 to that of Cornhill Road 8 is about 917.9 PM, and from the estimated inside edges of the same roads is about 901.0 PM. The one *insula* for which we have a measurement is approximately 306.4 PM between the inside edges of the roads. The two *insulae* bounded by Cornhill Road 3, Cornhill Road 15, and Cornhill Road 9 could also measure about 300 PM wide if Cornhill Road 15 is not conjectured directly across from Cornhill Road 11, but rather slightly to the west (the eastern sides of buildings do not align to suggest the likely position of the road). Indeed, the changing road pattern north of Cornhill Road 1 (Cornhill Road 7 disappearing and Cornhill Road 10 being built) indicates that the northern side of the road was probably not subject to the same planning system and was not part of the grid. Also, there is no reason that roads north and south of Cornhill Road 1 need to line up, especially as the road north of Cornhill Road 1 would have led only to small side road Cornhill Road 10 and may have been an alley for drainage and private access.

The western half of the early Londinium grid, as currently conjectured based on the alignments of buildings, is also around 900 PM in width (from Cornhill Road 3 to the western side of buildings at Site 40) and divided into three parts. On the strength of the evidence for the eastern half of the grid, two other roads (Cornhill Road 12 and Cornhill Road 13) making up the western half have been conjectured in addition to the excavated (but imprecisely illustrated) Cornhill Road 14, and are supported by the positions and alignments of nearby buildings at Sites 40, 39, 83, 84, and 88. The position of Cornhill Road 6/Cornhill Road 12 is the same distance west of Cornhill Road 3 as Cornhill Road 8 is east of Cornhill Road 3, forming a symmetrical six-*insula* grid plan with two main east–west roads and seven north–

south streets. The estimated north–south depth of the *insulae* between Cornhill Road 1 and Cornhill Road 4 could have been 450 PM, or 1.5 times the width.

In comparison, the *insulae* of Period 2 Colonia Claudia were not regular, and the approximate distances between streets ranged from around 60 to 100 metres (see Crummy 1984: 4, fig. 14), which puts Colonia Claudia on a similar scale as Londinium where the *insulae* may have been about 90 metres wide. The eastern street grid outside the fortress at Colonia Claudia, probably laid out in the mid-50s, was composed of *insulae* of different sizes with little repetition, unlike the fortress, which might have been surveyed by strips measuring 200 and 300 feet and main street measuring 60 feet wide and side streets measuring 20–30 feet wide (Crummy 1985). The main east–west street of Colonia Claudia measured about 500 metres long within the fortress, plus another about 250 metres in the eastern extension, comparable in length to the 664-metre Cornhill Road 1 in Londinium. The main street in Colonia Claudia was flanked by two *insulae* to the north and two to the south within the old fortress, extending over about 450 metres north to south, which is far greater than Londinium's single *insula* depth. The *municipium* at Verulamium probably extended over the smaller area of around 10–12 hectares (Niblett 2001: 63, fig. 29), yet the *insulae* at Verulamium were generally more than 100 metres wide, although not all were laid out yet in the pre-Boudican period; certainly pre-Boudican *Insula* XIV is considerably smaller (see Frere 1983: 7, fig. 5). At Calleva the *insulae* blocks also varied, but many were less than 100 metres in width (see Fulford and Timby 2000: 6, fig. 1) and comparable in size to those in Londinium, although it is not clear whether they were already laid out in conjunction with the new north–south orientation of the courtyard building or if the street grid came later (Fulford 2003). Durovernum follows a different pattern in which the mid-first-century urban centre focuses on major approach roads and the internal grid developed piecemeal in the second century (Millett 2007b: 157). The orthogonal planning of Oppidum Ubiorum (Cologne) is of late Augustan or Tiberian date and is characterised by two main perpendicular streets within

where Cornhill Road 8 and Cornhill Road 9 were excavated, and to the conjectured position of Cornhill Road 3 based on its location at Site 66.

boundary ditches and earth-and-timber ramparts, although no *insulae* have been identified (Carroll 2003). Inside the boundary ditch of Oppidum Batavorum (the *civitas* capital at Nijmegen), also of Augustan or Tiberian date, there are no known *insulae*, although long plots facing onto the main street were separated orthogonally with ditches (Willems and van Enckevort 2009: 21). Perhaps the most similar to the hypothetical six-*insula* reconstructed plan of Londinium discussed here is that of first-century Bagacum Nerviorum (Bavay), where the early grid consisted of six *insulae* facing onto either side of the main street (Gros and Torelli 1988: 302, fig. 159). These *insulae* were larger, at around 100 by 125 metres, but the arrangement could have been a model considered by the people in Londinium. The forum area at Bagacum is not, as in Londinium, at a T-junction, but is rather off-centre within the bounds of an *insula*. As in Londinium, the main road from the nearest large urban centres enters the grid-planned core at an angle, which is further evidence that intersection of Cornhill Road 1 and the Colchester road Cornhill Road 2 either was envisioned as a boundary during the earliest road building or was recognised as a traditional form of a boundary by the later town-builders.

The model of other *de novo* foundations involves a planned grid, first laid out with *insulae* and building plots, and followed by the construction of buildings, both public and private. The slow progress, piecemeal construction, and lack of property boundaries found in early Londinium suggests a different mode. The inhabitants of Londinium had aspirations to build a proper grid, perhaps on the model of Bagacum, and were in the process of doing so in the first decade of occupation, but may not have completed their plans by AD 60/61.

Although there is no evidence for fences or boundary ditches defining building plots on Cornhill, the irregularity of building plots on Ludgate Hill is clear from the one site with evidence in the form of revetted terraces (Site 22) and probably on Cornhill where the widths of buildings vary greatly and do not suggest regularly spaced plots, which perhaps undermines the reconstruction of the symmetrical plan presented above. Therefore,

although the possible plan for Londinium's grid could be considered part of the larger mid-first-century pattern of early urbanisation and that the basic arrangements and measurements of the street grids were defined by common planning systems, perhaps using the same measuring devices, the slow progress and variation in plots in Londinium indicate that the nature of urban planning was less controlled and regimented than can be found in other grid-planned towns. The planning was probably guided and detailed through group collaboration, perhaps by administrative authorities, reflecting changing cultural values modelled on Continental Roman urbanism, but their interpretation of the model and implementation of the internal structure followed a vastly different pattern.

Dynamics and change

This phase represents a complex and dynamic period of growth for the town, and there are also many examples to contradict the notion of continuity and respect of early urban planning through the maintained alignments. Cornhill Road 7, laid out in association with earlier pre-Boudican buildings, was destroyed when it was overlain by a range of three large buildings: the southern proto-forum building and the two to its north. People built two buildings (Site 51 Buildings 4 and 5: Figure 53) to encroach upon Cornhill Road 8 and probably to block it for a short period of time, but these buildings were soon dismantled, perhaps by order of the authority enforcing the new grid plan. A new road (Cornhill Road 9, Figure 54) was constructed at the expense of an earlier building (Site 51 Building 44, Figure 23), which may have involved the involuntary relocation of the occupants. Multiple properties where the occupants were engaged in some kind of metal-working industry were combined into a single plot for the much larger, possibly public, aisled hall (at Site 50, Figures 51 and 52). Such changes in boundaries and land uses could be indicative of the buying and selling of property, significant changes in the economic status of the occupants, communal ownership, and actions of individuals or of the administrative

authority. Clearly, early planning and swift construction of a unified orthogonal grid should have prevented such changes, which may have resulted from the authorities carrying out the construction of roads that had been previously surveyed and planned, but ignored by individuals during rapid building construction.

Land that had been rubbish dumps was claimed for new structures along Ludgate Hill Road 1 and Southwark Road 1, and the settlement expanded into the areas of earlier burials along Ludgate Hill Road 1 and Cornhill Road 2 – two buildings were constructed on top of earlier burials (Site 20 Building 7: [Figures 18 and 43](#); Site 54 Building 1: [Figures 15 and 40](#)) and other buildings were erected beyond those boundary points. An area of cremation burials (at Site 72: [Figures 32 and 40](#)) about 90 metres north of buildings north of Cornhill Road 1 indicates that the new limits of settlement were defined there, as the Eastern (Barber and Bowsher 2000), Western (Bentley and Pritchard 1982; Watson 2003; Whytehead 1980), and Watling Street (Mackinder 2000) Cemeteries indicate other areas outside the occupied area throughout the Roman period.

Continuity and stability

There is also a large east–west ditch south of the northern cremation cemetery at Site 71 ([Figure 32](#)) that maintained an earlier boundary marker (fence) and the alignment of which can be traced throughout the Flavian redevelopment of the area. It is likely that the ditch marked the northern limit of the settlement in the pre-Boudican period.

On Ludgate Hill a new road (Ludgate Hill Road 6) was constructed atop an earlier track ([Figures 21, 49, and 50](#)) and two parallel ditches on the same approximate alignment. These ditches could have been related to planning the road (although the road was built *c.* 4.0 m further north) or could have been part of the drainage associated with the Walbrook tributary streams and merely influenced the position and alignment of the first buildings in that area, which led to the creation of the track and, later, the road.

There are indications on many sites that, when early pre-Boudican buildings were replaced, the new buildings maintained the same alignment, occupied the same space, and kept the same boundaries as earlier fences, ditches, and construction features, indicating that the early planning was respected in many instances. At many sites later pre-Boudican buildings appear to be built almost directly over the earlier buildings, despite having being completely levelled and covered with thick make-up deposits, indicating the importance of wall alignments and land boundaries. There is evidence at Site 84 ([Figures 25 and 57](#)) that, after dismantling an early pre-Boudican building, the builders marked the wall locations with stakes before depositing substantial make-up and levelling layers for the new buildings. Where similarities in alignments and wall placements occur on other sites, it is likely that the builders used such a method to mark the boundaries and maintain the exact plots. At Site 50, where this continuity of wall locations is particularly apparent, both the new Group 3.2 ([Figure 51](#)) and the earlier Group 2 structures ([Figure 22](#)) were associated with large, industrial, metal-working pits in a yard that appeared to be shared by at least three buildings in both phases, despite levelling and filling of the original industrial pit.

This type of rebuilding, where the people improved and expanded structures, but rebuilt the walls in almost exactly the same locations, maintained shared external space, and reconstructed yard features associated with the function of the site, suggests that a group of occupants continued to live on the same plots and undertake similar activities during the first decade of occupation in the settlement.

In other instances where continuity of wall placements or boundaries cannot be shown, indications can sometimes be identified that tenants may have remained on the same properties. For example, at Site 13, where the new rectilinear buildings ([Figure 43](#)) seem to bear no relation to the earlier Group 2 round buildings and gullies ([Figure 18](#)), the new secondary buildings between and behind the rectilinear structures were also round, supporting the continuity of traditions in building construction, occupants, and activities. One very large building

had a complex history of development, even within this short time period: Site 22 Building 3 (Figure 50) was located on land that had been occupied by two previous smaller buildings (Group 2 Site 22 Building 1: Figure 21; Group 3.2 Site 22 Building 2: Figure 49). It is possible that the occupants of Site 22 Building 3 were the same as those who occupied the earlier structures, advancing in society over time until finally they were wealthy enough to afford a large structure. Along the same reasoning, it is possible that the people living in the small round house at Site 5 (Figure 21) were the same who built rectilinear Site 5 Buildings 2 and 3 (Figure 48) closer to the road in approximately the same location, indicating that the inhabitants' values were changing and that they chose to rebuild in a more Roman, rectilinear fashion. This supposition is supported by evidence from the round buildings at Site 13 and the post-and-stake earth-fast rectilinear building at Site 2 (Figure 50).

Estimated occupied area

The roads¹⁷ that may have been extant at the time of the Boudican fire could have provided more than 9 kilometres of street frontage (Table 21), and were the significant linking features of the settlement as well as the public spaces onto which nearly all buildings faced. During this phase many properties appear to have had buildings facing onto the road as well as secondary structures in the yards behind. Those buildings lining the roads were usually situated less than 5.0 metres away, often with a boardwalk or gravel sidewalk between the building and

the road. The buildings along the conjectural Cornhill Road 4 appear to have been further away, as in earlier phases, perhaps about 30 metres.

The main roads provided more than 7 kilometres of potential street frontage, and the side roads another 2 kilometres. Street grids were representative of urban aspirations and a pledge of future urbanism, which means that the *insulae*, once laid out, could have remained vacant for a period of time, especially where redistributing property and destroying buildings (like Site 51 Building 44) was part of the process (Woolf 1998: 120), and so we cannot be sure that there were buildings along all of the roads. The measurements of available road space, therefore, provide a way to estimate the maximum possible number of buildings fronting onto roads that could have been standing in AD 60/61. The average width of late pre-Boudican buildings, when it is known or can be closely estimated, is approximately 9.5 metres (but see also Figure 63). Where multiple buildings facing onto a road have been excavated, the distance between them averages to less than about 4.0 metres (and often as little as 1.0 m), although it is difficult to determine what the density of structures was, especially on side streets. Even where exact frontage widths of buildings are not known, external surfaces between buildings demonstrate that buildings were separate structures with widths that can be estimated (unlike, for example, the long rectangular group of attached buildings in *Insula XIV* at Verulamium (Frere 1972)). At Site 51 seven buildings separated by external areas fit into the approximately 90.7 metres of Cornhill Road 1's southern frontage within the surviving *insula*, which supports this estimate of how many buildings could have lined pre-Boudican Londinium's streets, and is interesting to extrapolate, if entirely speculative. If one allows 9.5 metres of building frontage and 4.0 metres of space between buildings, there is space for 395 buildings along the main roads Cornhill Road 1, Cornhill Road 2, Cornhill Road 3, Southwark Road 1, and Ludgate Hill Road 1, or 507 buildings with the smaller spacing of 1.0 metres, and 334 or 429 buildings on the other roads. These models seem to correspond well to an attempt at reconstruction; placing 9.5-metre-wide buildings 4.0

¹⁷ Rowsome (2008: 28, fig. 1.3.3) and Swain and Williams (2008: 34, fig. 1.4.1) suggest a far more extensive grid of streets in AD 60/61 than the evidence compiled for this project can support. Their two northern east-west streets on the Cornhill are rejected here because of lack of evidence and on the basis that there is a cremation cemetery in that area. Rowsome (pers. comm.) confirms that those two roads are back-conjectured from the Flavian period, and they may not have even been surveyed in the pre-Boudican period, but he suggests that the double ditch at Site 48 (see pages 93–4 above) indicates that those roads might have been planned. West of the Walbrook, the northernmost east-west street Rowsome shows is later, and not incorporated into this project. Similarly, the north-south streets are not identical. Rowsome (2008) and Swain and Williams (2008) do not provide a list of sites from which their evidence derives and so a detailed comparison of which sites fed into those interpretative maps is not currently possible.

Table 21. *Estimated lengths of occupied street frontage and the corresponding estimate of buildings that might have lined those roads*

Road name	Type of road	Estimated length (m)	Estimated frontage (m) ^a	No. of buildings with c. 9.5-m width + 4.0-m spacing, rounded down to nearest whole	No. of buildings with c. 9.5-m width + 1.0-m spacing, rounded down to nearest whole	No. of buildings illustrated on the hypothetical building map (Figure 67)
Ludgate Hill Road 1	Main	820	1,640	121	156	121
Ludgate Hill Road 2	Alley	41	0	0	0	0
Ludgate Hill Road 3	Side	182	264	20	25	24
Ludgate Hill Road 4	Side	73	46	3	4	4
Ludgate Hill Road 5	Alley	31	0	0	0	0
Ludgate Hill Road 6	Side	163	226	17	22	20
Ludgate Hill Road 7	Conjectured main	571	1,142	85	109	80
Cornhill Road 1	Main	664	1,328	91	117	93
Cornhill Road 2	Main	381	762	56	73	56
Cornhill Road 3	Main	241	482	36	46	32
Cornhill Road 4	Conjectured main	543	1,086	80	103	76
Cornhill Road 5	Side	52	54	4	5	4
Cornhill Road 6	Side	61	72	5	7	4
Cornhill Road 8	Side	133.2	134.4	10	13	11
Cornhill Road 9	Side	133.2	134.4	10	13	8
Cornhill Road 10	Alley	60	0	0	0	0
Cornhill Road 11	Conjectured side	32	14	1	1	0
Cornhill Road 12	Conjectured side	141.2	150.4	11	14	11
Cornhill Road 13	Conjectured side	137.2	142.4	11	14	8
Cornhill Road 14	Conjectured side	134.2	136.4	10	13	8
Cornhill Road 15	Conjectured side	133.2	134.4	10	13	8
Southwark Road 1	Main	608	1,216	90	116	91
Southwark Road 2	Side	410	770	57	73	56
Southwark Road 3	Alley	102	0	0	0	0
Southwark Road 4	Alley	33	0	0	0	0
Southwark Road 5	Alley	33	0	0	0	0
Southwark Road 6	Alley	20	0	0	0	0
Southwark Road 7	Alley	8	0	0	0	0
Total		5,941.2	9,934.4	728	937	715

^a The estimated frontage for side roads is calculated as '2(estimated length – (corner loss × intersections))'. The estimated corner loss (based on the known measurements at Sites 38 and 51) for the main side streets between Cornhill Roads 1 and 4 is 33 m (with two intersections); for the other side streets it is 25 m (with one or two intersections). Alleys are assumed to have no frontage, as at sites 20 and 101.

metres apart onto the drawing of the roads (Figure 67), it is possible to fit in 715 buildings (compared to the estimated 729). For comparison, there are at least 91 archaeologically attested contemporaneous Group 3 buildings that fronted onto nearby roads. If the estimate of 715

possible street-front buildings is a close estimate, then no less than 12.5 per cent of the structures of pre-Boudican Londinium have been at least partially recorded, which is a significant sample on which solid interpretations can be made. Obviously this estimate does not account for the

Table 22. *Estimated occupied area based on the excavated and conjectured roads extant (and possibly extant) around AD 60/61, encompassing the area 33 metres from the main roads and 25 metres from the side roads (see Figure 67).*

Zone	Estimated occupied area (m ²)
Between north side of Cornhill Road 1 and waterfront	179,701.5
Cornhill Road 2	28,628.6
Ludgate Hill Road 1, Ludgate Hill Road 7, and side roads	120,061.8
Ludgate waterfront	8,56.7
Northern eyot	44,014.8
Southern eyot	18,648.0
Mainland south of Thames	5,412.1
Total	39,7323.5

waterfront areas or placements of existing buildings. It does, however, allow us to outline the approximate occupied area which is not the same as shown in the most recent maps of pre-Boudican Londinium (Rowsome 2008: 28, fig. 1.3.3; Swain and Williams 2008: 34, fig. 1.4.1). Although the evidence from pre-Boudican Londinium is fragmentary at best, there is a large body of data, and estimates of occupied area and population are possible (Tables 22 and 23). These calculations must, however, be taken for what they are: estimations based on the keyhole excavations that reveal only partially preserved glimpses of the ancient town.

Building plots extended back approximately 33 metres at most along the main roads and about 25 metres along the side roads, and the area between Cornhill Road 4 and the waterfront was also occupied (although the buildings in that area probably fronted onto Cornhill Road 3, Cornhill Road 4, and Cornhill Road 6). The area bounded by regions at those distances from the roads totals 32.9 hectares north of the Thames and 6.8 hectares in Southwark. The planned grid area of Londinium (i.e. from the north of the proto-forum to the waterfront) was about 18.0 hectares, considerably larger than the area enclosed by double ditches at the Augustan town at Waldgirmes, which was only 7.7 hectares (von Schnurbein 2003) and larger than the possible 10–12-hectare pre-Boudican

occupation area of Verulamium, not defined by any boundary or *insulae*, but clustering around the main road and central enclosure (Niblett 2001: 66). Londinium was, however, far smaller than the grid-planned area of contemporaneous Augustodunum (Woolf 2000: 118), which was about 200 hectares, as well as Colonia Claudia, which was about 36 hectares (Crummy 1985). Similarly, the ditch-enclosed area of late Augustan/Tiberian Oppidum Ubiorum was also significantly larger at approximately 60 hectares (Carroll 2003: 24) as was occupation at Julio-Claudian Calleva, which, although perhaps not organised into a street grid at that stage, covered an area of more than 100 hectares (Fulford 2003: 100). The grid-planned core of Londinium was most comparable in size to Tiberian and later Oppidum Batavorum (Nijmegen), which was about 20 hectares in size inside its boundary ditch, although it too may have lacked a street grid and been organised orthogonally by main roads and property-boundary ditches (van Enkevort and Thijssen 2003: 62–3; Willems and van Enkevort 2009: 70). It is also comparable to first-century Bagacum, where the two rows of six *insulae* covered an area of around 15 hectares (Gros and Torelli 1988: 302, fig. 159).

Almost certainly, the calculations of occupied area of early Londinium presented here overestimate to some degree in areas where there is no evidence for occupation, as between Cornhill Road 4 and the Thames east of the bridge, and along most of Ludgate Hill Road 7 and Southwark Road 2. This area encompasses all sites studied in this project and all Boudican fire debris except the scattered activity on the northern slope of Cornhill beyond the cremation cemetery at Sites 41 and 48, the fenced enclosure on the northern eyot between Southwark Road 1 and Southwark Road 2 at Site 98, one building far north of Ludgate Hill Road 1 at Site 17, waterfront activity on the northern eyot at Site 118, and the building north-west of Southwark Road 2 at Site 108. Adding the isolated areas of these outlying sites to the calculated area (as has been done for Site 26 on the Ludgate waterfront) would alter the figures very slightly; whereas increasing the extents of the occupied area to encompass the outlying areas would skew the figures enormously and provide

Table 23. *Population estimates based on occupied area. Numbers indicate people per unit area.*

Zone	Estimated occupied area (m ²)	Estimated occupied area (ha)	50/ha	100/ha	120/ha	123/ha	150/ha	187/ha	1/45 m ²	1/35 m ²
Between north side of Cornhill Road 1 and waterfront	179,701.5	18.0	899	1,797	2,156	2,210	2,696	3,360	3,993	5,134
Cornhill Road 2	28,628.6	2.9	143	286	344	352	429	535	636	818
Ludgate Hill Road 1, Ludgate Hill Road 7, and side roads	120,061.8	12.0	600	1,201	1,441	1,477	1,801	2,245	2,668	3,430
Ludgate waterfront	856.7	0.1	4	9	10	11	13	16	19	24
Northern eyot	4,4014.8	4.4	220	440	528	541	660	823	978	1,258
Southern eyot	18,648.0	1.9	93	186	224	229	280	349	414	533
Mainland south of Thames	5,412.1	0.5	27	54	65	67	81	101	120	155
Total	397,323.5	39.7	1,987	3,973	4,768	4,887	5,960	7,430	8,829	11,352

a falsely large area; the occupied area shown in Figure 67 is probably already an overestimate, especially along Ludgate Hill Road 7. Because the roads were the most important public spaces in early Londinium, the decision has been made to focus the estimated occupied area on the roads and the dense patterns of occupation associated with them. There will always be suburban farms, external activity areas, and structures outside an urban centre, but they could not be considered to be part of the ‘occupied urban area’, especially those sites on Cornhill beyond the cremation cemetery (see page 71).

Estimates of the population of pre-Boudican Londinium have varied widely from around 10,000 (Swain and Williams 2008: 39), to less than 30,000 (Perring 1991: 16), up to around 30,000 (Merrifield 1969: 147). The various methods of calculating population proposed by different models,¹⁸ and based on the occupied area suggested here, produce estimates ranging from 1,986 to 11,352 (Table 23) and the average preferred by Woolf (1998) of 100 people per hectare might be most reasonable, producing an estimate of 3,973 people. Most of these measures produce smaller estimates than previously suggested. The discrepancy is a direct product of the maps of pre-Boudican Londinium that have been drawn based on

back-conjecturing the Flavian occupied area and not on a compilation of all known pre-Boudican evidence. This project uses the largest synthesis to date of pre-Boudican data to estimate the occupied area, and yet the estimate is still smaller. It is likely, therefore, that the total settlement area of pre-Boudican Londinium was closer to 39 hectares than the 44.85 hectares (distributed differently) recently suggested (Swain and Williams 2008: 37). If there were as many as 715 buildings, that would be 5–6 people per building, or a possible 2–3-generation family unit. Most *civitas* capitals in Gaul would have had around 5,000–6,000 inhabitants using this measure and the secondary centres around 3,000 (Woolf 1998: 138). That would make early Londinium equivalent in population (whatever measure one uses) to a secondary urban centre in Gaul after only ten years of occupation and construction, although more than half of the occupied area existed outside the planned core.

THE OVERALL PICTURE

If we were to posit a military origin to the settlement we would expect to be able to find parallels at excavated military sites of the period for the buildings illustrated and discussed here. And yet there is no building where a clear parallel exists in a military context. The majority of buildings were constructed using mixed methods in a variety of sizes and shapes that provide no evidence to

¹⁸ 50–100/ha, Duncan-Jones 1982: 276–7; 150/ha, Goudineau 1980: 309–10; 187/ha, Jongman 1988: 11; 1/35–45m², Millett and Graham 1986: 154, Swain and Williams 2008: 38, and Wallace-Hadrill 1994: 99; 120/ha, Pelletier 1982: 226; 100/ha, Woolf 1998: 138.

suggest that the town was full of strip-buildings, town-houses, or any other particular structural type. The variety and diversity is indicative of a population with complex and varied social identities and economic statuses within the local social structure and hierarchy. The more distinctive buildings have parallels in civilian contexts, which is evidence that the population was entirely civilian from the earliest period, with a core powerful group based in the partially grid-planned Cornhill central zone.

The people living on Ludgate Hill, along Cornhill Road 2, and in Southwark were probably not part of this power-holding group, however. There is evidence that a community comprised at least partly of indigenous British people lived along Ludgate Hill Road 1 and that indigenous construction methods were used in waterfront structures, probably indicating that the labourers were British. These outside groups were attracted to the settlement, but did not position themselves centrally within it. An investigation of activities and social identities through the material culture (Chapter 5) will elucidate the significance of the structural differences apparent across the settlement. Drawing the two types of evidence together provides the basis for a robust interpretation of the foundation of and activities in pre-Boudican Londinium (Chapter 6).

Early Londinium thus lacks the symbolic and ideological package of monuments that would demonstrate the inhabitants' understanding of, acceptance of, and desire to emulate the models of Roman towns in southern Gaul and Italy (see e.g. Zanker 1988, 2000). It is, however, likely that the process of building the town was stopped artificially and the remains from the pre-Boudican period are a half-complete template for the town. In this way, it is particularly interesting to see how the process of founding a town was conceived and carried out. If the powerful individuals and groups paying for and planning the grid, the possibly public buildings, and the proto-forum were so committed to urban development and civic munificence, why are these key public buildings lacking? If there were wealthy people, why do the buildings have no marbles, no mosaics, no peristyles or

atria to create a resemblance to affluent Mediterranean cities? Roman-style monumentalisation began around 30 BC in nearby Gaul (Woolf 1998: 120); the occupants of early Londinium adhered to the system of values that used such symbolism, however, because they constructed the street grid and placed an open gravelled area with large buildings at the main crossroads, evidence of civic monumentalisation characteristic of towns with these other features.

On the basis of the evidence of the Tabard Square inscription and the Kentish landholding document (see pages 62–3), the inhabitants are likely to have had ties to the Cantiaci tribe and the Reims area of Gaul. In Gaul the elite and the *civitas* administration were responsible for organising and funding urban developments where people moved down into the plains, into grid-planned towns near major communication routes (Woolf 1998: 115). Such settlement shifts are particularly striking in northern Gaul, perhaps because their earth-fast buildings were less permanent than the stone structures characteristic of the south of Gaul, and the people in the north were more willing to make these kinds of transitions. By the time Londinium was being built in the mid-first century these settlement shifts had been occurring for, perhaps, eighty years. Gallo-Roman elites were committed to change, and the pattern evident in Gaul could be applied to a settlement of Gallic people in Londinium. There is little evidence of legitimacy devices in the ostensibly private dwellings, and yet the possibly public buildings could demonstrate such motives – a pattern shared with Gaul (such as at Augustodunum: Woolf 1998: 125, 2000: 119) of the construction of street grids and public monuments in new towns before lavish private dwellings.

The absence of strong evidence for equal property allotments makes the early settlement in Londinium very different from *coloniae* and other towns planned by a strong central authority. In conjunction with the slow implementation of the plan for the street grid, it suggests that individual initiative was operating under a weak power structure. Evidence of the actions of private persons and of civic munificence has been demonstrated,

and yet these different driving forces of change and urbanism were often at odds with each other. At least three, and perhaps five, distinctly different areas of the settlement seem apparent: Ludgate Hill, the waterfront north of the Thames, the Cornhill planned core, Cornhill

Road 2 ribbon development, and the areas in Southwark. Analysis of the material culture within this structural analysis will provide the complementary evidence for interpreting the character of the settlement of early Roman London ([Chapter 5](#)).

PEOPLE, ACTIVITIES, AND MEANING

INTRODUCTION

The assemblage from pre-Boudican deposits is large and diverse, and a whole book could be dedicated to the artefacts alone.¹ Combining the interpretations of the structural and stratigraphic evidence presented in the previous three chapters with the analysis of 17,245 available records² of material culture provides the possibility of

¹ Indeed, such a project was once in the planning stages at the MoLAS (A. Wardle, pers. comm.). If such a project is undertaken, it would certainly complement the analysis here.

² Digital data tables were available for many of the sites in this project (see Table 6, above) from the MoLAS/MOLA Oracle database and DUA/DGLA Unix database tables stored on CDs in the LAARC, while others have been created from archived and published data tables for use here. By updating the fields, codes, and abbreviations to match the specific and limited current MOLA designations and values, all data could be combined into tables for inclusion in the relational database and duplicate objects recorded in multiple tables could be removed. There are 2,931 pre-Boudican contexts from 56 sites that contain artefacts, producing 17,245 records of pre-Boudican finds data. Presence of the data available for each site is available in Appendix: Gazetteer of Sites. These counts of contexts and finds records exclude 459 records of objects that are probably intrusive (dated by specialists to AD 70 or later), as well as the 3,129 records linked to the 1,172 contexts that were grouped by the report authors in the same land-use areas as some contexts which are included here, but which have been removed because they represent later robbing or strata that were in use for a significant time after about AD 60/61. It is possible that many of the ceramic forms and fabrics that appear 'intrusive' might have been misidentified, but it was outside the scope of this project to check these identifications. NB: Dragendorff 37 bowls have been left in the database following Millett 1987; La Graufesenque Dragendorff 33 cups have been left in the database because, although not common in Britain until the second century, they were manufactured from the reign of Tiberius to the late second century and may not be intrusive.

Artefacts that are not ceramic or glass vessels or building materials (e.g. coins, metal finds, worked bone objects, worked stone objects, glass objects, etc.) are generally quantified by simple counts as they tend to fragment into a small number of pieces and the specialists are usually able to determine how much of the artefact is present without the need of mathematical modelling. Glass vessels in the MOLA Oracle database of Roman glass tables are quantified by sherd count. The glass data tables from that database are more descriptive of the glass colour, vessel part, and manufacturing technique than the DUA/DGLA glass tables, which often have no fragment quantification, but do have fields for EVEs and weight. Animal-bones tables used in this project note the species, part of the animal, age of the animal, and the state of the bone (burnt, etc.), but

do not quantify the bones (access could not be gained to this information during the available study visits).

Quantification of ceramics is more complicated. Three different kinds of ceramic digital data tables were available: DUA/DGLA Unix database 'spot-dating' tables, DUA/DGLA Unix database 'Roman pottery' tables, and MoLAS Oracle database 'Roman pottery' tables (see the Appendix: Gazetteer of Sites for a list of data available for each site). The ceramics included in these tables are quantified in different ways. Ideally, all the ceramics for this project would be quantified by sherd counts, weights, and estimated vessel equivalents (EVEs) to provide more reliable measures, judge the level of fragmentation, and estimate the number of vessels represented. Ceramics vary in their completeness, and different fabrics tend to fragment in different ways and in different depositional conditions, so sherd counts alone are neither reliable nor comparable between different forms and fabrics and depositional conditions (Orton et al. 1993). Such work, not always undertaken by those who excavated the sites and processed the finds, would be extremely time-consuming: full quantification would require direct analysis of the pottery in the archive storerooms. This level of analysis was outside the scope of this project, and only the data present in the archive, provided from contract firms, or extracted from publication tables, have been used.

Spot-dating tables record the presence of pottery in each context by unique combinations of fabric, form, and decoration. The quantification designations of 'small' (less than 30 sherds), 'medium' (31 to 100 sherds), 'large' (more than 100 sherds), and 'very large' (multiple boxes of sherds) indicate only the number of sherds in a given context and do not refer to the quantification of fabric/form/decoration combinations, although these characteristics are also recorded (Symonds n.d.). Because such quantification does not take into account the proportions of different vessel types, quantification of spot-dating data is often done by 'rows' (Davies 1993: 135; Monteil 2005: 27), which indicates the presence of unique form/fabric/decoration combinations in each context and allows for a comparison of the relative presence of each type between sites (Davies et al. 1994). Of the pottery data tables, only thirty-two sites have some form of quantification (See Appendix: Gazetteer of Sites for lists of which data was available by site): 27,588 sherds, 872.5 kg, and 259.3 estimated vessel equivalents (EVEs) (there are also 1,911 rows – out of 12,374 – of pottery data with no quantification). The Group 1 assemblage is a very small group (314 sherds, 5.25 kg, 0.16 EVEs), for example from contexts stratigraphically beneath the Group 1 roads (i.e. not all hypothesised deposition listed in Chapter 2), Group 2 is a larger assemblage (11,009 sherds, 333.81 kg, and 97.2 EVEs) and the two will be combined for analysis henceforth. Because the quantification methods vary enormously, as do the sizes of the sites, the sampling strategies, excavation conditions, and volumes of excavated sediment, one cannot compare absolute quantities. With the quantification caveats in mind, this analysis attempts a basic interpretation of specific social indicators in the ceramics, but not a holistic assessment of the pottery assemblage. Returning to the archive and producing quantified data tables for all possible sites would allow for more robust and detailed statistical analyses, but this work would require a major investment of time. In conjunction with the synthesis provided here, it could be a most fruitful study.

making a robust portrayal of the lives of people in early Londinium. A holistic and comprehensive approach to the material culture, integrating discussion of contextual assemblages with the structural associations (as has been supported by, for example, Willis and Hingley 2007: 2–3 and Yentsch and Beaudry 2001) is the goal of this chapter. The sub-sections here – crafts, occupations, and work; patterns of coin loss; evidence for literacy; possible ritual activity; preparing, adorning, dressing, or modifying the body; illuminating; and food and drink preparation, serving, and consumption – are chosen based on the research objectives of the project and the strengths of the dataset. The site-by-site data tables and reports combined for analysis here were divided into: registered finds (from which coins and glass were removed where they were present also in dedicated data tables), glass, coins, Roman pottery, spot dating (pottery), building materials, and animal bone. Of these, the only ‘type’ largely presented and discussed separately here is coins (see [page 120](#)), whereas the others are integrated into the different discussions as relevant.

Assemblages are further interpreted and discussed as a part of the sediment in which they were found – for example, ‘use assemblages’ derived from occupation debris, fire debris, and yard deposits – thereby moving forward from the initial step of specialist identification and quantification to contextual analysis and spatial/social interpretation. Where relevant, the assemblages are also presented broadly divided into early pre-Boudican contexts associated with road building and early settlement – that is, contexts from Chapters 2 and 3 – and later pre-Boudican deposits associated with occupation up to AD 61 – that is, contexts from [Chapter 4](#). Within these, comparisons between sites from the three broad areas of Londinium are considered.

Not all 118 sites examined in this book have artefact data records and, while the greatest strengths of the dataset are presented here, it must be borne in mind that missing data and poorly recorded (or unrecorded) assemblages affect the available information. Preservation conditions also limit what we can hope to achieve with the remaining artefacts. Many more objects originally existed

in the ancient world that survive only rarely under excellent preservation conditions. Wooden barrels, for example, often survive in waterlogged conditions, having been reused to line wells, and were probably originally constructed for transportation and storage of commodities and foodstuffs, especially beer and wine (Cool 2006: 15, 130, 140). Butter churns, vessels, and utensils of bone and wood, which may not survive, were commonly used for preparation, storage, service, and consumption (Cool 2006: 93), as is demonstrated by a turned wooden dish and wooden stoppers from Site 22, bone spoons from Sites 22, 101, and 107, and bone knife handles from Sites 20 and 50. A string of wooden beads from Site 22 demonstrates that wood was also used for personal adornment. Metal and glass objects would have been retained for recycling when their use-lives ended, and those metal vessels, fasteners, tools, and fittings that do survive in the archaeological record are often too corroded to determine their original form.

The symbolism, meaning, and significance of artefacts in social discourse are also important to this study, although considerably more complex and problematic in this part of the ancient world where texts and images, from which interpretative analogies could be developed, are uncommon. In places such as first-century central Italy it would be methodologically appropriate to conduct a study of contemporaneous authors, wall paintings, funerary reliefs, public and private sculpture, mosaics, etc. to form hypotheses of what people of differing statuses wore, what people ate in different contexts, how group and age/gender identities were constructed, how religious rituals were carried out, and so on. Those resources, however, would be wholly inappropriate in a town where we do not know from where the population derived, although Gauls and indigenous Britons are likely candidates. As there is no native literature from pre-Roman or Roman Britain and no contemporary accounts written by those who themselves experienced a day in early Roman London, it is impossible to produce a historical archaeology of early Roman London. No first-century historical or literary works were written about Britain or by a person who had ever been to Britain.

Other than politics and time period, it may be unlikely that there were strong cultural ties between Londinium and the centre of the Empire. The remaining choices are to make analogies with places and times more distant from Roman Britain in the mid-first century AD – wall paintings from Italy and elsewhere, literature written by elite men from the centre of the Empire, visual culture from later Roman Britain and other provinces, and modern ethnographic analogy. Nonetheless, the notion that artefacts are an important, symbolic, meaningful, and integral part of society drives the methodology employed here, which makes use of the most information possible from the assemblages through known or likely associated activities, identity markers, and significances.

Because ‘things’ facilitate, reflect, and affect all aspects of our lives, archaeology could be defined as the study of people and society through material culture in its archaeological context and in association with the past natural and cultural landscape. The inspiration and motivation to use artefacts as meaningful and symbolic objects and to include them as a significant component of this analysis derives from North American historical archaeology, although texts are central to the field of historical archaeology, which strongly divides the present analysis from the methods of that field. Whereas interpretative artefact studies have only slowly emerged from specialist appendices and gained importance for addressing research objectives and social questions in Roman archaeology in the last twenty years, historical archaeologists in North America have been using artefacts in this way since the influential work of Glassie (1968, 1975) and Deetz (1977). The primary difficulty in applying this theoretical stance to Romano-British archaeology is the difficulty of semiotics³ related to this particular place and time. To understand the meaning of artefacts, one must understand what they signified and symbolised to people in the past. Only in ethnography can this technique be fully realised, but historical archaeologists are successful at producing probabilities, partly because of the richness and diversity

of their artefact assemblages and partly because their interpretations can be informed by ample textual and visual material from the past as well as interviews, folklore, and traditions continued to the present day (Yentsch and Beaudry 2001: 227).

Historical archaeology emerged as a discipline in its own right in the mid-twentieth century, during the Historic Preservation movement in America, and has always been closely related to anthropology, social theory, and material culture studies. Social-theory trends⁴ have all had their affect on approaches to artefact studies: structuralists were probably the first to consider that material culture was socially negotiated and had the ability to communicate (see Tilley 1991), while behavioural archaeologists stressed the importance of archaeological context in understanding material culture in relation to human actions (e.g. Schiffer 1972). These approaches existed in contrast to processualists and those followers of the New Archaeology who conducted more empirical studies (stemming as a movement from Binford 1962) of how people used artefacts to adapt, which was itself a step forward from earlier evolutionary and cultural-historical approaches where artefacts were often seen as a static fossil record of change (see Trigger 1989 for an overview). Under the umbrella of post-processualism, social theory gained importance for those who wished to eschew the earlier theoretical approaches. Studies of commodities, class conflict, and wealth distribution (although primarily economical at the time) stemmed from Marxist theory in the 1980s and evolved into a focus on inequality and the study of minority groups as active agents in the 1990s, which was approximately the point at which social theory and post-colonial theory started to become more important to Roman archaeology and artefact studies in the UK. Post-processualist researchers began to focus on how people forged and negotiated social identities with

³ Semiotics is the study of signs and symbols, where the sign and the signified are linked by a cognitive chain.

⁴ While many monographs and articles on social, material culture, and behavioural theory have influenced this methodology (e.g. Deetz 1977; Glassie 1975; Hicks and Beaudry 2006; LaMotta and Schiffer 1999; Meskell 2005; Schiffer 1987; Yentsch and Beaudry 2001), this section does not include a full discussion of these, as excellent synopses of such approaches are available elsewhere (e.g. Buchli 2004; Cochran and Beaudry 2006; Yentsch and Beaudry 2001).

material culture (e.g. Beaudry et al. 1996) and how artefacts reflected and affected power, relationships, and identities. Artefact analysis related to the household and active voices within the domestic sphere, in leisure activities, daily life, and in identity formation, followed with the increasing importance of feminist theory, as did an emphasis on symbolism, gender, group identities, materiality, and the body (e.g. Allison 1999; Crummy and Eckhardt 2003; Meskell 2005, Beaudry 2006; White 2005; Yentsch and Beaudry 2001). While Roman archaeologists and post-medieval archaeologists in the UK traditionally organised artefacts by material (e.g. 'bone', 'iron') to produce specialist reports for the purposes of taxonomy, description, dating, and commodity studies, artefacts were organised in functional groups (e.g. 'personal adornment', 'sewing and needlework') by historical archaeologists in North America, and their studies have, generally, been more interpretative and anthropological in their drive to answer social questions (Cochran and Beaudry 2006: 191–2).

Functional categorisation of artefacts in Roman archaeology in the UK was first introduced by Crummy (1983), and continues to be encouraged (e.g. Cool and Baxter 2002) as a more successful method than other types of categorisation. Crummy's functional categories do not, however, include vessels of ceramics and glass. Ceramic functions can be estimated in a general fashion from fabrics – for example, heavily tempered fabrics with thick walls would be better suited to cooking by heating over a fire than fabrics with little temper and thin walls because they would be more resistant to heat damage. Many Romano-British coarse wares (especially jars and large bowls) have thick walls and visible temper, and would probably have been associated with food preparation, service, and communal consumption. Pompeian red ware, however, being red and shiny, is similar in appearance to Samian, but the presence of covered bowls with concentric circles on the base and remains of sooting indicate that they were used for cooking, demonstrating that fabric alone is not the only method of determining culinary function (see, e.g., Davies et al. 1994; Tyers 1996). Imported, thin-walled Samian ware and

colour-coated wares, which have little to no visible temper, are generally thought to have been used for service and consumption, further supported by their decoration, surface treatment, and the prevalence of bowls, dishes, and cups.

Forms, sizes, and the physical characteristics of vessels can also be used to estimate their most likely functions: shallow vessels with wide mouth diameters (i.e. plates) were likely associated with solid foods, while tall and deep vessels and those with narrow mouths, spouts, and/or handles would be better suited to holding and pouring liquids. Vessels with larger mouth diameters that would be able to hold larger amounts of food and drink are more likely to be associated with service and communal consumption, while small vessel diameters and volumes are more likely to have been for individual use or small-quantity communal foods, such as dipping sauces (see, e.g., Millett 1979; Marichal 1988 and Polak 2000 cited in Monteil 2005: 124–63; and Tyers 1996: 42–3).

As a part of this focus on function and significance, interpretative artefact studies have become more common (e.g. Eckhardt 2002; Swift 2003), but there remains a gaping divide between structural evidence and artefact evidence in site reports, thematic articles, and synthetic studies, although finds specialists have begun encouraging the use of artefacts to illuminate structural evidence (e.g. Crummy 2007). The use of 'function' was an important step forward, but can probably be replaced with a more robust idea of 'ensembles of practice' (M. Beaudry, pers. comm.) or 'activity assemblages'. A focus on object material or function tacitly suggests that it is the objects themselves that are of interest to study and not the people using them, whereas emphasis on the human activities facilitated by objects is driven by social questions more closely related to studies of symbolism, significance, and identity construction/communication. Interrogating associated activities also allows for the grouping of related objects with different functions: there were objects with wide varieties of functions that ancient people used for the same basic activity and which might reasonably be expected to be found in association within the same room assemblage in a house (see, e.g.,

Allison 2004; Berry 1997). For example, mortaria, stone querns, cheese strainers, meat hooks, and cooking pots might be found together in a kitchen and were all used for the activity of preparing food, although they have different materials and functions. Perhaps more importantly, activities associated with ceramics and glass as well as small finds are considered here, thereby expanding on the discussion of function of Romano-British small finds as proposed by Crummy (1983) to include all classes of material in the interpretation. Ideally, Romano-British objects should be analysed in contextual assemblages, as they relate to the behaviours of ancient people and describe the activities of daily lives, and as meaningful and symbolic objects that people in the past used to negotiate social discourse, communicate with others, and which constructed and reflected identities.

While historical archaeologists (and Roman archaeologists working on other parts of the Empire with greater documentary evidence) would employ several lines of evidence including documents and images, the overarching theory behind conceiving of material culture studies in this way is still profitable to archaeologists of early Roman Britain. For example, in order to accomplish a task or project, such as giving a lavish dinner party, one would require lamps for ambience and illumination, furniture for sitting, reclining, and setting out food and drink, serving vessels, communal consumption and/or serving utensils, an architectural space, preparation of the body beforehand, written invitations, purchase/acquisition of food, drink, lamp oil, entertainment, etc. This complex project requires imported foodstuffs, glass vessels, and ceramics; money would probably have to change hands to acquire such diverse things; the host/ess would choose the ambience, decoration, menu, smells, presentation of him/herself and home in a way particular to his/her social and cultural identity and aspirations. If, for example, the host/ess were attempting to mimic the lavish dinner parties of the Roman world, s/he might know to have dining couches brought in, slaves to serve and entertain, lamps, glass, and silver to flaunt his/her expendable income, wear a toga or stola, dress her hair in the latest fashion, and emphasise his/her education by

writing invitations in Latin. Therefore, ‘use’ assemblages containing imported glass vessels, a variety of ceramic vessel types, lamps, ink pots, styli, hair pins, unguent jars, and coins could allude to the possibility of undertaking a project such as this party. Aside from the fantasy of this example, the association of objects of different materials and functions can be important to our interpretations. For this reason, activities and contextual assemblages are considered throughout this chapter.

In any branch of archaeology researchers are limited in using artefacts to investigate such complex qualities of human identity as class, gender, and ethnicity because objects are only a part of the original complete suite of gestures, speech patterns, and behaviours that went into making up such aspects of one’s identity. Two people of different gender, class, status, religion, and ethnicity may use the same object, but the rules that govern how they use it, what they do with it, when they use it, where, and with whom are the intangibles that we cannot hope to fully recreate from an archaeological dataset. To ascribe meaning to ‘things’, behaviour, actions, and discourse must be investigated; to link subjectivities, such as age, sex, gender, ethnicity, and class, to objects, there must be analogy. Where there are no texts or images through which we can make analogies, the relationship between discourse, symbolism, and materiality is highly problematic (Thomas 1998: 108).

Interrogating the data

A quantitative spatial analysis of the finds is not the goal here, and the outcome is significantly more qualitative and interpretative and does not depend on the careful quantification of finds (which is not, in any case, possible for the majority of the sites). Invalid comparisons of the quantities of finds from excavation areas of widely varying sizes, and where individual deposit volumes vary, are difficult problems to overcome. The quantity of artefacts recovered archaeologically is affected by curate behaviour before the Boudican fire, looting, reclamation, and robbing activities, preservation conditions, and truncation of earlier deposits by later intrusive features, the depth of

basements in modern buildings, the amount of area investigated with excavation (as opposed to watching briefs), the skill of the excavators, the methods of artefact recovery and sampling, and the time allowed for excavation. If the volume of sediment from each deposit could be determined, then artefact densities could be compared (Millett and Evans 1992; Millett 2007a), which would make comparisons between excavation areas and deposits of different sizes possible, but such a task based on plans and section drawings would be a monumental undertaking. Arguably, there is not sufficient primary evidence available to ensure the accuracy of any quantitative measures or to determine the value and significance of direct inter-site quantitative comparisons.

Certain artefact-rich deposits, especially from large deposits or large sites, may skew distributions and significantly affect any statistical analysis. For example, one Group 2 yard south of Cornhill Road 1 (at Site 51) contains nearly a quarter of all Group 2 finds from Cornhill. The issues of excavation conditions, size of excavated areas, volumes of excavated sediment, sampling strategies, truncation and preservation conditions, post-excavation analysis, state of archived material, and publication status severely affect the data tables at all sites. For these reasons the themes of interest here are discussed with more weight placed on artefact/feature associations and the presence of supporting evidence, as opposed to quantifiable patterns in the data. If quantified measures were relied upon too heavily it would always appear that certain sites were fantastically important and have 'more' evidence for activity, whereas in reality they are large sites with well-quantified assemblages. Of the 17,245 finds records in the database, over 69 per cent derive from only nine sites: five on Ludgate Hill, three on Cornhill, and one in Southwark (Sites 5 (970 records), 13 (521), 20 (1527), 22 (2,423), 23 (800), 49 (1,233), 50 (1,221), 51 (1,492), and 101 (1,825)). Analysis of the internal patterning within the assemblage of a given site and comparison of relative frequencies between sites are statistically valid, however, and are used whenever applicable.

SEPARATE COMMUNITIES

The notion of separate communities in early Londinium has already been mooted in relation to the different construction, road, and burial patterns. The three areas that are significantly different are Cornhill, Ludgate Hill, and in Southwark, although other pockets of difference have been noted by physical separations in occupation areas and the boundaries of settlement demonstrated through burial locations.

Although the majority of artefacts included in the database associated with contexts related to the earliest settlement (Chapter 3) were deposited west of the Walbrook, the majority of structures and of artefacts that can be related to buildings, yards, and occupation were found east of the Walbrook (Tables 24 and 25).

Absolute quantities of artefacts cannot be compared because of the reasons already listed, but proportions of assemblages within the zones can be reliably compared. Weight of building material⁵ (BM) and ceramics lends itself to these kinds of large-scale material comparisons. The proportions demonstrate that material-filled sediment was dumped on Ludgate Hill near Ludgate Hill Road 1 and in Southwark near Southwark Road 1 in contexts not associated with buildings and their yards, the opposite pattern observable on Cornhill. As has already been suggested (Chapter 3), the relocation of waste to Ludgate Hill appears to have been a significant undertaking, perhaps representative of extra-urban waste-disposal, scavenging, and reclamation activities. The rubbish dumping along Ludgate Hill Road 1 and Southwark Road 1 was very likely to have been more than just incidental deposition. Rather, the vast quantities found on relatively unoccupied land suggests that rubbish was frequently removed from the occupied areas and dumped there. The material also seems to have been sorted. For example, although approximately half of the ceramics and building material from Group

⁵ NB: This quantification of building material and ceramics does not include the AD 50–70 ground-consolidation dumps from Group 3 at Site 118, where there was about 40 kilograms of building material (Yule 2005: 25). Access could not be gained to these data during the available study visits.

Table 24. *Comparison of finds not associated with structures (i.e. not in nearby yards, make-up and levelling layers, on floors, in construction, use, and destruction-debris contexts) from Group 2 deposits*

Zone	Finds records Group 2	% finds records not associated with structures	Ceramics total (weight in kg)	% of ceramics not associated with structures (weight in kg)	BM total (weight in kg)	% of BM not associated with structures (weight in kg)
Ludgate Hill	2,671	88.47%	175.41	92.43%	128.40	94.92%
Cornhill	1,906	38.61%	89.35	14.53%	87.787	30.24%
South of Thames	994	100%	69.02	100%	29.37	100%

Table 25. *Comparison of finds not associated with structures (i.e. not in nearby yards, make-up and levelling layers, on floors, in construction, use, and destruction-debris contexts) from Group 3 deposits*

Zone	Finds records Group 3	% finds records not associated with structures	Ceramics total (weight in kg)	% of ceramics not associated with structures (weight in kg)	BM total (weight in kg)	% of BM not associated with structures (weight in kg)
Ludgate Hill	4,524	9.46%	297.12	2.75%	267.59	7.69%
Cornhill	4,531	14.57%	175.76	14.85%	701.88	6.27%
South of Thames	2,330	40.82%	75.16	19.82%	312.40	11.99%

2 was deposited in Ludgate Hill rubbish dumps, only 25% of the glass fragments from Group 2 were found in those contexts and 28% of the coins, which probably indicates that the coins were being retrieved and the glass was being selectively removed for recycling before the rubbish was deposited.

Of the eleven Group 2 coins from Ludgate Hill, only one coin (9.09%) is associated with the construction and use of buildings and yards, compared to eleven (64.71%) out of seventeen on Cornhill. Therefore, it appears that the Ludgate Hill population was not using or losing coins west of the Walbrook until later in the occupation of the settlement. Such a situation could indicate that few monetary transactions occurred in the earliest years on Ludgate Hill or that the population, arguably composed partly of indigenous inhabitants (see [Chapters 3 and 4](#)), had less access to and need for coinage in the early years of occupation. This could mean that few merchants or traders were resident in the earliest Ludgate Hill population or that the indigenous residents did not use or need coins in the same way as the occupants on Cornhill. This possible

chronological patterning, when combined with the contextual information, provides another perspective from which to illustrate the differences between the separate populations and bears out the hypothesis that Ludgate Hill was not simply a suburban expansion necessitated by overcrowding of the centre, but rather that the populations were indeed separate and different and actively made decisions about where to live, probably related to their cultural and social identities (Millet 1994: 433).

Those who chose to live in such an area – the round-house occupants at Sites 5 and 13 and those living in the small earth-fast post-built structure at Site 22 – are likely to have been socially separated from the occupants of Cornhill. Their zone was probably thought of by Cornhill occupants as something of a wasteland, a zone for dumping garbage, beyond the limits of the structured settlement. The prevalence of indigenous British structures, and therefore probably indigenous British inhabitants, in this area might suggest that the Ludgate Hill occupants were not welcome to or had no desire to live in the grid-planned core, yet they somehow benefited

from proximity to the new town, probably in trade, scavenging, selling locally produced ceramics and food, or labour, as is demonstrated by the wattle-work waterfront structure (see [page 52](#)).

The dumping of rubbish near their houses could also have been a type of symbolic aggression and statement of intolerance by the Cornhill occupants, or perhaps it merely signifies a zone of little value to the Cornhill community, where the outsiders could claim land without encountering difficulties because the Cornhill people had no interest in building or living there. Whatever the significance, the difference demonstrated through the structures that was especially apparent in the earliest buildings ([Chapter 3](#)), but also continued into the years leading up to the Boudican fire ([Chapter 4](#)), is further supported by the artefacts. The zones of Ludgate Hill, Cornhill, and Southwark were materially and structurally different. The earliest occupation of Ludgate Hill, for example, does not appear to be a suburban expansion, a result of the dense occupation of the Cornhill core spreading west across the Walbrook for lack of space along the main road. The zones were, instead, socially distinct and their inhabitants made active decisions concerning where to build their homes, shops, and workshops (see also [Mill-ett 1994: 433](#)). For this reason, comparisons between the zones are carried out through this chapter.

CRAFTS, OCCUPATIONS, AND WORK

The craftsmen, butchers, bakers, and others who produced goods and provided services for the people in the settlement are often archaeologically visible in a way that the merchants and traders are often not. Where specialised tools, fixtures, and material residues were left behind when the people fled the town, it is possible to identify the presence of these people. Such identification aids analysis of the associated structures and assemblages to understand the place such people held in the society, their individual and group identities, and the activities of their households. Craft traditions are often linked to particular groups of people and techniques and tools indicating different ethnicities and groups.

There is evidence for craftsmen specialised in smelting and smithing iron, metalworking in the form of heating metals in crucibles, casting lead and copper-alloy objects, woodworking and carpentry, and throwing and firing pottery. Undoubtedly there are many types of work that will be archaeologically invisible because their tools and products were organic. It has, for example, been suggested that a timber-lined pit or tank set within a clay-packed trench on the Cornhill waterfront at Site 52 represented a garum-production area ([Bateman 1986](#)).

Soldiers and veterans

The artefacts are used here to address the popular hypothesis that Londinium originated as one or more invasion-period military enclosures (see [pages 11–18](#)). The functions and chronology of the early large ditches (see [pages 17, 37–8, 51, 68, 70, 93–4, 97](#)), the planning and layout of the settlement (see [pages 59 and 93](#)), and the characteristics of the building-construction methods and materials (see [pages 44, 57, and 101–2](#)) have already been considered, and demonstrate that there is no evidence to support the existence of a Claudian fort.

Besides objects strongly associated with dress, specialised activities, and identity, such as armour and weaponry, the material remains that would be left by military people might look very similar to other domestic and industrial sites. [Allason-Jones \(1999\)](#) correctly questioned how we might identify a military assemblage, especially on sites that are not overtly military in architecture or function. Equally, military objects on a seemingly civilian site cannot be used unproblematically as conclusive proof of occupation by soldiers. There was a less clear-cut distinction between military and civilian settlements in Britain than in other parts of the Empire ([Perring and Brigham 2000](#)), and military objects are to be expected on civilian sites. Equally, soldiers and veterans could have been indigenous British men, sons of the elite ruling class and others who served in the Roman army and then returned to Britain ([Creighton 2001](#)). Comparisons to other tightly dated Claudian/early Neronian assemblages

would be beneficial, but are largely impossible because of the lack of detailed study and accessible archives at sites such as Colonia Claudia, Verulamium, Rutupiae, or Fishbourne. Future comparative work on the assemblages from the contemporaneous levels of these sites would prove illuminating.

Assessing the overtly military-related artefacts in securely pre-Boudican deposits is the most effective manner of assessing the military-foundation hypotheses (see [Chapter 1](#)). The sites in this project produced approximately the same amount of military-related pre-Boudican objects (twenty-nine) as the fourteen excavations directed by Philip Crummy in Colchester between 1971 and 1979 (which produced thirty-one). There can be no question that excavations in London cover a much larger total area and have produced far more ‘small finds’,⁶ and yet the numbers of pre-Boudican military objects are comparable. Although quantitative comparisons are always difficult, it does seem that the order of magnitude of pre-Boudican military artefacts from London is insignificant when compared to Colchester. This result is unsurprising; military people in Camulodunum/Colonia Claudia would be expected to leave behind more evidence of their presence than in Londinium, where there was no garrison and pre-Boudican

occupation was approximately six to nine years shorter. The legion was based in the fortress for six years and the colony was a large town of veterans for the following eleven or twelve years before the Boudican Revolt.

The Vindolanda texts, which are distant from early Londinium in time and space, nonetheless provide a rich documentary record of the activities of soldiers in Britain. They supply evidence that large parts of the garrison were moving around the province all the time, accompanying the governor on his travels and stationed at other forts, while individual soldiers could be sent off on lone missions, perhaps to deliver messages (Tablet 154 in Bowman 1994). Also, the veterans settled at Colonia Claudia could have had reason to travel to Londinium, and some veterans may have settled there. The port was probably a point of entry, including for soldiers, arriving from the Continent as well.

A bone sword-grip was found in the Group 1 fill of a pit stratigraphically earlier than Ludgate Hill Road 1 on Ludgate Hill (at Site 5: [Figures 9](#) and [21](#); see also [page 127](#)). A fist-and-phallus amulet was found beneath the surface of Southwark Road 1 (at Site 105), which is a type of motif possibly associated with the military (Crummy 1983: 139).

In association with Group 2, north of Cornhill Road 2 at Site 44, another bone legionary *gladius* grip was deposited in the fill of the V-shaped Group 1 ditch ([Figures 9](#) and [24](#)). When it was deposited, that part of Cornhill Road 2 was probably outside the settlement, beyond the burials at Sites 54 and 59. Another stretch of the same ditch (at Site 56) contained the articulated bones of a horse’s leg, indicating that these deposits too could have had some special significance; horses were, of course, a powerful symbol of LPRIA elite identity as well as of the Roman military (Creighton 1995: 286). A pendant from a military horse harness was found in the natural gravels at Site 71 by the Cornhill waterfront ([Figure 14](#)), which is a possible indication that soldiers or veterans were involved in the construction or use of the early waterfront structures.

Four other military objects were deposited within the material-rich Group 2 rubbish dumps along Ludgate Hill

⁶ This project uses data from 118 sites, 57 of which had small-finds data available. There are 45,393 registered small finds from these sites, 1,585 of which are pre-Boudican (from 47 sites – i.e. 10 sites with small-finds data produced no pre-Boudican small finds). The 57 sites with small finds used in this project may represent c. 48.3% (57/118) of the total from all 118 sites. The total number of small finds from all 118 sites is unknown, but could be as high as about 94,000 if the count of 45,394 represents approximately 48.3% of the total. The total number of Roman small finds from London is also unknown, but the 57 sites in this project produced an average of 796 small finds per site; if all 1,599 sites with Roman finds in London produced 796 Roman small finds each, there would be 1,272,804 Roman small finds from London. The excavations in Colchester produced an estimated 14,263 objects (Crummy 1983: 3, table) from 14 sites, one-third of the small finds from the 57 sites in this project. Therefore, comparable quantities or proportions of the total Roman small-finds dataset should be at least three, if not eighty-nine, times higher in London. Obviously, without comparing preservation, collection strategies, recording methods, volumes of excavated sediment, and excavated areas, it is really impossible to compare quantities between towns in this way. Nonetheless, it is clear that much more of London, and much more of pre-Boudican London, has been excavated than Colchester, although recording and collection in the 14 Colchester sites has been more systematic overall.

Road 1 not associated with nearby structures: a hinge possibly for *lorica segmentata* armour, an iron knife of military type, a *dolabra* military pick-axe (all from Site 5: Figure 21), and a copper-alloy mount with an inscription⁷ that functioned as a label or tag for the property of an auxiliary soldier from Site 20 (Figure 18). These objects were probably lost or discarded in the rubbish deposits, indicating that legionary and auxiliary soldiers or veterans elsewhere on the site were among those who produced the refuse that was dumped on Ludgate Hill.

The only locations where Group 2 military objects have been found in association with structures (yards, make-up, construction, occupation and destruction deposits) are at Sites 49 and 51. A lobate cuirass hinge was found in a yard associated with Site 49 Building 1 (and which continued in use after the southern proto-forum building was built) north of Cornhill Road 1 east of the proto-forum (Figure 22). In the yard between Site 51 Buildings 15 and 44 (Figure 23) there was a possible industrial pit and an external deposit that contained a large quantity of objects and is unlikely to have been a rubbish deposit because it was surrounded by an active working area (the industrial pit), two buildings, and a timber- or wattle-lined well. Four pieces of armour, a military mount, and a pendant were found there, which might indicate that the industry carried out on that site was undertaken by the military, or perhaps that recycling of metal, such as armour, formed part of the industrial activities on that site.

It is curious, however, because one of those buildings was the structure that had to be destroyed to make way for Cornhill Road 9 (Figure 54). If the yard and associated buildings can be connected to military activity, it is interesting that the planning of the grid was not taken into account before the construction of the buildings, which might be supporting evidence that the military were not involved in the planning of the grid. Because the only military objects associated with use contexts in Group

2 were found in the Cornhill core, it is likely that is where possible soldiers or veterans were. In the late Neronian/Flavian period a military camp fortified with ditches was built on Site 51 (see Dunwoodie forthcoming), and there may be some indication of the presence of soldiers or veterans in the area in the early pre-Boudican period as well.

There are two-and-a-half times as many small finds associated with Group 3 contexts than Group 2, but there is approximately the same number of military objects (fifteen in Group 3 and twelve in Group 2). This decrease in the relative frequency of military finds indicates either a demonstrable decrease in the frequency of soldiers and veterans living, working, and stopping in the town as the military moved north and west or different depositional and reclamation processes affecting the Group 2 and Group 3 deposits. As the population probably increased by thousands over the time period between the earliest construction of buildings and AD 60/61, it is likely that recovery of lost items of value increased with the numbers of eyes. Additionally, the looting and reclamation associated with the Revolt and following years may have resulted in a depleted assemblage of recognisable military items.

On Ludgate Hill a fragment of an apron mount and three studs of military type were found in the make-up dumps for structures at Site 22 Buildings 12 and 13 (Figures 49 and 50), the timber revetment of which dates to the winter of AD 52/53 or later (Tyers 2011). Like the roadside rubbish dumping these are secondary deposits, and so these objects do not necessarily indicate the presence of military on that site, but rather from where the dumped sediment derived. Similarly, an iron socketed spearhead of military type found in the floor of Site 22 Building 8 (Figures 49 and 50) could have been deposited within the sediment matrix at the time of quarrying, but another iron socketed spearhead was deposited in strata related to external activities in the nearby yard. A hinged strap of *lorica segmentata* and a decorative military mount were found in the destruction debris of nearby Site 22 Building 11 (Figure 50), and a pendant from a military horse harness derived from destruction debris of

⁷ The inscription reads 'SVRI · VITALIS | SIMILIS · F', probably meaning '[centuria] Suri Vitalis Similis f[ili]', which translates as '[century] of Suris, [the property] of Vitalis, son of Similis' (Tomlin 2006b: 99).

Site 5 Building 4, further west along Ludgate Hill Road 1 (Figure 48). This association between military objects and the use of certain buildings may indicate that soldiers or veterans were among the population living on the eastern slope of Ludgate Hill at the time of the Boudican fire.

The only Group 3 military objects from Cornhill were found on Cornhill core sites that produced military objects related to Group 2 (Sites 49 and 51). Two strap hinges were found in the Boudican destruction debris and the fill of a timber-lined box drain of the southern proto-forum building (Figure 52), and a military dress-hook was found in a secondary context (the matrix of the floor of Site 51 Building 24: Figure 54), across the road and further east from the Group 2 military objects on that site. The strap hinges in the drain could indicate military control and distribution of the grain in the eastern end of the southern proto-forum building. The absence of further military presence south of Cornhill Road 1 between Cornhill Road 8 and Cornhill Road 9 could indicate a significant change in the use of that area once the grid was fully laid out and structures were constructed along the streets, or it could support the hypothesis that the armour and other military objects represented scrap metal being recycled in association with Group 2 activities.

South of the Thames, an auxiliary-type spearhead was found in an external deposit near Southwark Road 1 at Site 96 on the southern eyot (Figure 41) and a hooked *dolabra* (military pickaxe) sheath guard was found in association with the external activities at Site 98 on the northern eyot (Figure 41). It is possible that veterans were among those settled in Londinium, perhaps responsible for constructing the animal enclosure at Site 98. The most significant object was a copper-alloy and iron sword or dagger chape found in the occupation debris of Site 101 Building 7 (Figure 59), which is likely to indicate that a soldier or veteran was among that building's inhabitants or workers. Site 101 Buildings 7 and 8 are those associated with the possible baking ovens in the nearby yard where fragments of glass vessels, a lamp, and lamp-holder were also recovered (see relevant sections below). The amphora-lined hearth in Site 101 Building 7 could indicate further industrial activities in that area.

The evidence suggests that soldiers or veterans in early Londinium were engaged in industrial activity, perhaps metal-working, in the earlier period south of Cornhill Road 1 between Cornhill Road 8 and Cornhill Road 9, minding a grain store in the southern proto-forum building, living/working in timber-framed rectilinear structures north of Ludgate Hill Road 1, and possibly managing a small landholding with livestock on the northern eyot, which could have been a place where cattle, driven in from farms to the south in Kent, were kept before being sold or butchered, or perhaps was a dairy. No objects of military armour or horse adornment have been found in Southwark.⁸ Although arguing from negative evidence can be problematic, one would think that if there had been a military enclosure in Southwark (as proposed by Sheldon 1978, Mattingly 2006, and Perling 2011), there would be some indication in the form of objects of dress such as those found north of the Thames.

Metal-workers

The metal-working evidence suggests at least six workshops on Cornhill and south of the Thames: that of bronze-workers south of Cornhill Road 1 east of the proto-forum at Site 50 (Figures 22 and 51) before that land was claimed for the construction of the aisled hall, other metal-working involving crucibles and a (copper-working?) hearth across the road within the southern proto-forum building at Site 49/55 (Figure 52), lead-casting and later copper-casting or smelting south of Cornhill Road 1 at Site 51 (Figures 23 and 54), a blacksmith on the northern eyot at Site 101 (Figure 59), copper-casting at Site 113 on the northern eyot (Figure 59), and an indigenous style of copper-casting on the mainland in Southwark (Figure 61). The specialised workshops indicate that the mode of production was

⁸ NB: The claim (Drummond-Murray et al. 2002: 49) that a fragment of a buckle of *lorica segmentata* armour was found in pre-Boudican contexts at Site 101, made in the site report, is not correct; as can be verified by the finds report at the end of that volume, the armour was found in association with the mid-second-century Building 27 (Wardle 2002: 219, 229).

based on diverse and specific skill-sets and centred in studios of individual function.

Disposed metal-working waste has been found in all areas of early Londinium, east and west of the Walbrook and also in Southwark, although the remains on Ludgate Hill only indicate small-scale lead- and copper-working. Stratigraphically early (Chapter 3) evidence for metalwork – in the form of pieces of ceramic hearths, lead waste, and iron slag – found in the rubbish dumps containing large amounts of other domestic and industrial rubbish along either side of Ludgate Hill Road 1 is unlikely to represent nearby activities, but the remains do support the presence of metal-working activities elsewhere at the time. Similarly, the copper and lead waste found in association with the AD 52 Cornhill waterfront revetment at Site 71 (Figure 14) is part of an assemblage filled with pottery and other finds and is more likely to be fill, excavated elsewhere and dumped there to consolidate the land.

There is, however, evidence associated with contexts discussed in Chapter 3 on Cornhill representative of on-site lead-casting and bronze-working. The fragment of lead waste and two fragments of a ceramic crucible for melting lead from the rich yard deposit with a possible industrial pit associated with Site 51 Buildings 15 and 44 south of Cornhill Road 1 (Figure 23) may suggest small-scale lead-casting on that site. The only site with a possible metalworking structure is the large pit filled with bronze waste and charcoal, associated with the lean-to addition of Site 50 Building 7 (Figure 22), on the site where the large masonry-founded aisled hall would later be built.

In later pre-Boudican contexts on Cornhill (Chapter 4), evidence of heating metal (copper? lead?) in a crucible was found within the occupation debris of the southern proto-forum building and evidence of a possible metal-working hearth-lining was found in the overlying destruction debris (both at Sites 49 and 55: Figure 52). Across the street (at Site 50) before the construction of the masonry-founded building the aisled hall, the earlier buildings associated with the first bronze-working pit (Figure 22) were replaced and a new, large, more

rectangular, clay-and-timber-lined pit was dug slightly to the west (Figure 51). The huge pit could have been industrial in function, and iron slag found in the shared yard may indicate smelting in the vicinity, although that would indicate a significant change from the earlier probable bronze-working.

Further east a crucible was found in a rubbish pit in a yard associated with Site 51 Buildings 12 and 16 (Figure 54). The brickearth hearth found in Site 51 Building 7 (Figure 54) was 0.75 metres in diameter and associated with a curved piece of daub with a metallic deposit on it that appeared to be copper, probably indicating that the hearth was used for copper-working or smelting. Unfortunately, no other significant remains of this structure survived except a brickearth floor. Fragments of a ceramic crucible were also found in a secondary context (beam-slot of Site 51 Building 18) at the same site.

There is evidence that copper-working was undertaken at Site 100 on the mainland in Southwark in association with early deposition (Figure 11), although there are no associated structures. On that site a whole ceramic crucible, crucible fragments, and a significant amount of copper waste were found in external dumps not associated with excavated structures. This completeness of one of the crucibles is likely to represent nearby copper-casting because a lower degree of fragmentation often indicates proximity to the primary deposition. The crucibles from this site are of an Iron Age form and the craftsmen were likely to have been indigenous Britons (Cowan et al. 2009: 108). In comparison to the more common Verulamium region white ware crucibles, those found on this site are of a coarse ware fabric with thicker walls and are more shallow with a lip for pouring. Continuity in metal-working activities exists into the later pre-Boudican period at this site: copper-casting by-products were found in the make-up deposits for buildings there (Figure 61), although not in the yard deposits, which may indicate a change in disposal practices. However, the metal-working evidence continued at that site in post-Boudican deposits, which suggests that there was a long tradition of metal-working there beginning in the

pre-Boudican period, probably by indigenous, rather than immigrant, craftsmen (Cowan et al. 2009).

Further north along Southwark Road 1 there is clear evidence for a blacksmith living and working in Site 101 Building 3 (Figure 59). Hammerscale, a by-product of working hot iron, was found in great quantities on the floor of this structure, which burnt down at some point before the Boudican fire. Destruction debris over the alley Southwark Road 4 at Site 113 (Figure 59), possibly derived from Site 101/104 Building 1 or another unexcavated building to the north, contained several large fragments of a large ceramic mould with copper-alloy residue and associated with copper waste, evidence of large-scale copper-casting in the vicinity, perhaps bronze cauldrons or even statues (Drummond-Murray et al. 2002). In other secondary contexts, evidence of copper-smelting was found in the construction deposits of Site 101/104 Building 1 (Figure 59) and a ceramic hearth fragment was also discarded during the construction of the alley between Site 101 Buildings 2 and 3 (Figure 59) and could relate to activity in the area. Evidence for iron smithing, casting copper, and smelting copper also derived from external deposits not associated with excavated buildings and in the fills of very large ditches further south along Southwark Road 1 at Site 96 (Figure 32).

It is notable that metal-working is best represented in only two discrete areas: south of Cornhill Road 1/east of Cornhill Road 3 and along Southwark Road 1. In the later pre-Boudican levels (Group 3) there is, however, some evidence that metal-working could have been undertaken on Ludgate Hill. Small-scale lead-casting, in particular, may have been common, although lead waste, droplets, and slag could be melted remains of structural/furniture fittings. A lead runnel and possible copper-alloy runnel both found in the yard of Site 22 Buildings 7 and 8 (Figures 49 and 50) and another lead runnel in the yard of Site 22 Buildings 23 and 25 (Figure 50), immediately to the west, is the best evidence for possible lead- and copper-casting. Ceramic hearth fragments with vitrified residues possibly related to heating or smelting metals have, like iron slag, been found only in secondary contexts on Ludgate Hill (a floor slab at Site 20 and a posthole at Site 26).

Carpenters

Evidence of woodworking and carpentry is far more difficult to detect because the by-products are infrequently well preserved, but as more than half of the pre-Boudican buildings are represented archaeologically by timber sills for baseplates and slots for groundbeams, both of which indicate timber-framing, it is likely that the town housed skilled carpenters carrying out this construction work. These carpenters were trained in a Continental Roman tradition employing timbers rectangular in section and using specialised tools, such as plumb lines, squares, and rules as well as axes and chisels to cut the wood (Goodburn 1991; Goodburn et al. 2011). Preserved pieces of timber offcuts, reused timbers in waterfront structures (see Goodburn forthcoming), iron nails, and iron joiner's dogs are further evidence of skilled carpentry. If there were approximately 400 (i.e. more than half of the estimated buildings: see Chapter 4) timber-framed buildings constructed in a ten-year period, perhaps with an initial burst of building as the new settlers arrived, from the first evidence for construction around AD 51 until the Boudican fire, there would have been several buildings constructed each month, almost certainly indicating a large number of skilled carpenters in at least temporary residence.

A large part of the timber could have been prefabricated timber and two-dimensional frames, representative of skilled craftsmen off-site, perhaps closer to the source of the timber. The wood, primarily oak, would have derived from both managed woodland and unmanaged treeland in south-east England (Goodburn 1991; Goodburn et al. 2011). A considerable supply would have been necessary to provide these timbers, which is circumstantial evidence for woodsmanship. The only waterlogged walls from the pre-Boudican period are those post-and-stake structures west of the Walbrook at Sites 2 and 5 (see Figures 48 and 50). Those who constructed those buildings were working within a long local tradition of vernacular architecture, where people could have constructed their own houses and workshops and were not necessarily specialised craftsmen.

One possible woodworking axe has been found, the *dolabra*⁹ axe in an early rubbish dump at Site 5 (Figure 21) and a sheath-guard for such an axe has been found in a deposit on the northern eyot at Site 98 (Figure 32). Metal tools were likely to have been well cared for and recycled when they were no longer useful, and only two other tools have been found in Group 2 contexts: an iron T-clamp found in an otherwise-domestic rubbish pit in a yard associated with the Site 71 Building 1 on the Cornhill waterfront (Figure 28), perhaps representative of the habitation of a local carpenter living in the nearby building and working on building jetties and revetments and repairing boats, and a modelling tool found in association with a nearby revetment (along with much other rubbish) on the same site.

In association with contexts discussed in Chapter 4, west of the Walbrook, an iron spoon-type drill bit was found in a yard north of Ludgate Hill Road 1 (associated with Site 22 Building 7 or the earlier phase of Site 22 Building 8: Figure 50), demonstrating that one of the external activities carried out in this yard was woodworking, with the carpenter probably living in the building to the east on the same terrace. This yard could have been shared or the craftsman who worked there could have also been involved in small-scale lead- and copper-working. This yard is also where a socketed spearhead and writing tablet were found, perhaps indicating a space used by a carpenter, metal-worker, and a veteran or soldier – who could conceivably have been the same person – who also used writing (see page 123).

A small iron tool found in the yard associated with Site 5 Buildings 2 and 3 (Figure 48) indicates woodworking on that site as well. It too was an active gravel-surfaced yard, shared by the two adjacent buildings, where people possibly undertook small-scale lead-casting and lost objects of value (coins and a finger ring). As both of these yard assemblages point to active external spaces where objects of value were lost, we can assume that carpenters

and woodworkers took their tools with them when they fled and only those that were lost in working areas have been recovered. It also shows that carpenters sometimes worked out of doors, perhaps in shared yards with other craftsmen.

Butcher

Butchering waste in a ditch on the southern eyot (at Site 96: Figure 32), in the form of bones of cattle, pigs, and sheep (including fragments of lamb crania from no less than forty-seven animals) bearing chop marks, indicates that a butcher or someone running an eatery was probably working at the southernmost edge of the occupied area (Rixson 1978). It has been suggested that this butcher slaughtered the animals nearby, removed the heads and dressed the carcasses, then divided the remaining parts into portions suitable for domestic cooking and consumption elsewhere (Ferretti and Graham 1978: 64). Together with the cattle enclosure on the southern part of the northern eyot (at Site 98: Figure 41), the evidence could suggest a zone of livestock and meat markets in Southwark. That the butchering waste was discarded in this ditch, where nearby a human skull was buried (see Chapter 4), could be significant of specialised zones for certain services and occupations, with meat merchants drawn to areas where they could discard carcass pieces easily outside the settlement. This waste could, therefore, be further evidence that the southern boundary of the settlement was on the southern eyot and that those who lived on the mainland – i.e. the indigenous coppersmiths – chose an area outside the main settlement.

Alternatively, the location could be that of an eatery or inn on one of the main roads entering the town. Another such establishment at Site 22 has been identified through a ceramic assemblage (Hill and Rowsome 2011a). Sheep and lamb heads can be boiled or steamed and consumed, as they are to this day in many countries (Scotland, Iceland, and Morocco, for example).¹⁰ Where

⁹ Goodburn et al. (2011) point out that these military-type axes could have been used for fine woodworking and not necessarily as mattocks or pick-axes.

¹⁰ My thanks to Prof. Lindsay Allason-Jones for drawing this to my attention.

cultural preferences err against serving the meat from heads, they can still be boiled for stock. However, there were possibly inedible animal parts (feet) in the Site 96 ditch, which could point towards specialised butchery; forequarters and hindquarters were also present, suggesting the possibility that this deposit could be the remains of a food-serving establishment.

Grain dealers, millers, and bakers

A miller, baker, or quern dealer probably lived south of Ludgate Hill Road 1 at Site 5 Building 2 or 3 (Figure 48), as demonstrated by nineteen lava quern fragments from rotary hand-mills approximately 0.40 metres in diameter (Williams and Peacock 2011) found in the yard and Boudican fire-destruction debris along with burnt grain and a well-made, semicircular oven. Grain grinding was an activity associated with Ludgate Hill, and that building in particular: of the sixty-six quern fragments in pre-Boudican deposits, fifty-seven are from west of the Walbrook and twenty-three (weighing *c.* 50 kg) from that site. The quernstones were, like most imported millstones in Roman Britain, mostly made of vesicular lava stone from the Mayen-Mendig area of the Eifel Hills in Germany, and were probably imported to Britain via the Rhine north and west through Cologne, Xanten, and Nijmegen (Peacock 1980: 49–50; Williams and Peacock 2011). The hourglass-shaped donkey mills known in Pompeii and Ostia were made from leucitophyre stone quarried in Orvieto that was widely exported (Peacock 1980: 44–6), and it is clear that there is no connection between this tradition of milling and the sources of stone and Londinium, dissociating Londinium's millers from Italy.

That all of the known querns from the pre-Boudican deposits in this assemblage were rotary hand-mills, and none was a beehive quern of LPRIA type or a larger donkey- or water-driven type, suggests that the millers all worked within the same tradition of hand-mills acquired from the same area of Germany. The presence of the oven in association with the miller at Site 5 Building 2/3 demonstrates that one dedicated professional both ground grain and baked bread, which was

common in some urban centres, such as Pompeii (Peacock 1989: 205). This arrangement could imply specialised and centralised production of bread. Although there are no water-driven millstones from pre-Boudican deposits, they are present in later contexts on Ludgate Hill, perhaps indicating that milling was an activity particularly associated with the area west of the Walbrook. There was a nearby grain store on Ludgate Hill in Site 22 Building 13 (Figure 50), which could have been related.

There were also grain millers and/or merchants and a probable baker in Southwark, although there are only two quern fragments from the pre-Boudican contexts in Southwark in the project database, which is evidence that grain was stored, sold, and distributed from certain places, milled elsewhere, and, sometimes, baked into loaves by other people. The baker probably lived in Site 101 Building 7 or 8 (Figure 59) on the northern eyot, as suggested by brick-and-tile external ovens and internal deposits of grain. Other grain-storage areas have also been identified in Site 101 Building 2 and Site 99 Building 1 (Figure 59) further north and in the easternmost room of the southern proto-forum building (Figure 52), which was probably a different mode of grain storage and distribution than those we see in these smaller buildings in Southwark.

The large deposit of grain in the southern proto-forum building was probably stored in sacks, as no other containers were found. It would not have been able to last very long without air circulation, and this huge store is indicative of a grain distribution node required to feed the large urban population. Because no granary buildings with raised floors to allow air to circulate, such as those at Richborough (Cunliffe 1968), have yet been excavated, the grain would have to have been distributed/sold relatively quickly. Grain was an important resource in all urban centres, and the job of bringing in clean, processed grain from the surrounding farms would have been a major undertaking to provide enough grain for the growing population. A study of grain isotopes across these pre-Boudican grain deposits would contribute to analysis of the origins of the grain and the economic model for food production in early Roman Britain.

Potters

There is evidence of an immigrant potter producing ceramics on the waterfront west of the Walbrook at Site 26 (Figure 20) where two waster sherds of a ceramic bowl and a flagon in Sugar Loaf Court ware (an oxidised fabric, abbreviated SLOW) were found in early external deposits. Other waster sherds were found in the floor layers of later pre-Boudican buildings on the same site (Figure 47), suggesting that they derived from sediment excavated in the nearby area. Although no kiln has ever been found, the presence of ceramic wasters is strong evidence for a nearby kiln – useless malformed objects were likely to be discarded close to the kiln site. A deformed SLOW jar was also found in a rubbish pit associated with the Cornhill waterfront building at Site 71. Because the range of known forms follows a strongly Continental tradition, SLOW is thought to have been made by an immigrant potter – perhaps from the area of Germania Superior that is now western Switzerland – living in London using local clay (Davies et al. 1994: 29). This potter's name may have been Caius Albucius, as attested by a stamp on a SLOW amphora imitating the Gauloise 3 form reading 'C ALBVCI'; a stamp that is most common on vessels found in northern Italy (M. Hassall cited in Davies et al. 1994: 29). Another possible pottery-production area also existed at Site 54 south of Cornhill Road 2 (Figure 40) where two hearths, possible clamp kilns (Birbeck and Schuster 2009: 14), were found in association with wasters in a fabric similar to SLOW.

Other Romano-British potters – such as those producing Verulamium Region White ware (VRW) and Eccles ware (ECCW) – produced forms uncommon in the Iron Age, such as 'honey-pots', cups, mortaria, unguent jars, certain types of dishes, and flagons (Davies et al. 1994). Other fabrics are characteristic of continuing production forms and techniques: potters making Early Roman Micaceous ware produced plates with shapes similar to Gallo-Belgic prototypes; those making Highgate Wood ware produced handmade, and not wheel-made, pottery. These forms and techniques relate to indigenous culture and, perhaps, conservative and traditional

foodways among consumers (Davies et al. 1994: 84; Brown and Sheldon 1974: 224).

Presumably the Ludgate waterfront potter sold his wares to local merchants who owned street-front shops. There is no other occupation or even roads in evidence on the Ludgate waterfront, suggesting that the potter transported the pots by boat to the Cornhill waterfront where, perhaps, traders and merchants dealt directly with shippers and manufacturers. Shopkeepers did sell pottery: there is strong evidence of a merchant who sold pottery in Site 22 Building 23 (Figure 50); the amount of pottery recovered from the occupation and destruction debris deposits of Site 22 Buildings 23 and 25 is over 21 kilograms – 12.7 kilograms and 17.25 estimated vessel equivalents (EVEs) of which is not amphorae and 4.9 kilograms and 8.67 EVEs of which is Samian ware. One bowl form (Dragendorff 29) made up the majority of this Samian ware (3.16 kg and 4.59 EVEs). In conjunction with the bone spoons and spices found with smashed pottery by the shelves of Site 22 Building 23, the excavators and specialists have suggested that this evidence demonstrates that it may have been a pottery and dry-goods shop (Hill and Rowsome 2011a).

Gem-cutters

The four gemstones found in the possible votive deposit discussed below (see page 127) may indicate the presence of a jewellery merchant or of gem-cutters (*gemmarii*) resident in Londinium, perhaps in the vicinity of where they were found on Cornhill, Site 47 (Figure 26). The stones appear, technically and stylistically, to be products of the same studio or of neighbouring studios, although probably the work of different individuals (Henig 1984a). Also, the carving of one of the stones is partly unfinished and none of the stones appears to have ever been set into jewellery and worn. There is evidence for gem-cutters either selling unfinished objects, or gathering them together, in the second-century Snettisham jeweller's hoard (Johns 1997; British Museum 1986,0401.1–356) from Norfolk. This diverse hoard, which included over a hundred intaglio gemstones, is evidence that

gem-cutters could have hoarded their wares by burying them in large assemblages, possibly for safe storage or hiding (the bracelets had to be bent/broken to be placed in the containing jar). It is possible that foreign gem-cutters were working in Londinium or that there were merchants purchasing partly finished products for sale in Londinium.

PATTERNS OF COIN LOSS

Coin data was available for 50 sites; at three of these (Sites 24, 74, and 76) the coins could not be correlated to contexts because phased stratigraphic reports and context indices were not available, and at 23 sites coins were not found in pre-Boudican contexts.¹¹ Of the roughly 2,880 Roman coins from all available sites, there are 269¹² (9.3 per cent) coins from pre-Boudican contexts grouped for this project at 24 sites, 3 coins in the very limited Group 1 contexts beneath the roads, 36 in Group 2 contexts, and 230 in association with Group 3 contexts, 89 of which were found together in a single hoard.

Despite not all of the sites producing coins, there is a pattern of coin use in all areas of the settlement, indicating strongly that the economy of early Roman London was coin based from the beginning. Considering that this project includes deposits from a short period ending in rapid abandonment where it is assumed that the population took their valuables, including coinage, with them, the number of coins is impressive, although comparisons are difficult to make. In Londinium around 16% of all Roman coins from the sites with pre-Boudican features and available coin data are Claudian–Neronian, 9.3% of all Roman coins (or 6.2% excluding the hoard) are from pre-Boudican contexts, and 3.8% (108 coins; others are either earlier or too corroded to identify) are Claudian and Neronian coins found in pre-Boudican contexts – figures far greater than Verulamium where 2.57% of the coins are Neronian or earlier, which is more similar to the

2.6% found at Cirencester, and 1.23–2.16% in Canterbury, and also to the average British mean of 2.4% (Reece 1991: 30–1, table II and 2002: 145, appendix 2). These figures from other towns represent all coins found dating to AD 41 to 69, including coins that continued in circulation and which were found in later contexts and so can be compared to the figure of around 16% in Londinium; by any of these measures it is clear that coin loss was far greater in the earliest period in Londinium compared to other centres and to Britain as a whole. The proportion is better compared with the Lion Walk excavations in Colchester, where 9.04% of the coins were Neronian or earlier (Reece 1991: 31, table II). The high rate of coin loss indicates that the population comprised, and had frequent interaction with, people who used coins. Soldiers were paid in silver coins and produced copper-alloy small change. Merchants, traders, innkeepers, craftsmen, and others would have required coins in exchange for their goods and services in a way that self-sufficient, agrarian, small-settlement dwellers would not necessarily.

Setting aside the hoard of 89 silver-plated copies of *denarii* at Site 85 and the copper-alloy *as* of Claudius from the burial at Site 29, of the remaining 179 coins, 84 (46.7%) are copies, 80 of which are Claudian copies (3 of Antonia), 2 are copies of Agrippa, 1 is an Augustan copy, and 1 a Tiberian copy. Nineteen of these 179 coins (17 copper-alloy and 2 silver) were recorded in registered finds tables and not by a coin specialist, and their character (i.e. regular or copy, ruler, denomination) is unrecorded. Four of the 179 coins are silver *denarii* (1 from Site 5 from 101 BC, 1 Claudian from Site 22, and 2 unidentified from Site 50) and 1 possible silver-plated copy of a first-century *denarius* (at Site 22). There is also 1 copper-alloy Greek coin, probably of Massilia, from Site 98. The majority of the coins are copper alloy, primarily of Claudius (18 regular, 80 copies), but also of Agrippa (2 regular, 2 copies), Augustus (1 regular, 1 copy), Germanicus (2 regular), and Tiberius (1 regular, 1 copy). The remaining copper-alloy coins were too corroded for the specialists to assign a ruler.

¹¹ NB: Duplicate records of coins in registered finds tables and coin tables have been removed.

¹² This figure excludes those coins found in pre-Boudican contexts which are 'intrusive'.

Claudian copies

The Claudian copies are more heavily weighted to Group 3 and the later period of occupation, as would be expected in the model whereby the shortage of small change was at its peak during the early reign of Nero (see [page 17](#), above): 21.79% of the Group 1 and 2 coins and 78.21% of the Group 3 coins are copies. More than half of the 179 coins (58.3%) are copper-alloy coins of unidentified (or unrecorded) denomination and could be either an *as*, *dupondius*, or a *sestertius* – 59 of these 104 unidentified coins are recorded as Claudian copies. Of the remaining 75 coins, 64% were *asses* (24 regular issue and 24 Claudian copies), 17.3% were either an *as* or *dupondius* (12 regular issue and 1 Claudian copy), 6.67% were *denarii*, 5.33% were *sestertii*, and 4% were *dupondii*. These ratios of Claudian copies compare well to the 66 Claudian coins from Fishbourne, where only 15 were regular issue (Reece 1971: 97). Silver coins (*denarii*) were clearly very rare, and there are no gold coins in the assemblage. Gold coins are extremely rare excavation-site finds in Britain, and those known derive primarily from hoards (Reece 2002: 84). People might have taken greater care with silver and gold coins and lost them less frequently; the coinage lost in early Londinium was *as*-dominated, copper-alloy, small change. These ratios are consistent by value lost, one would expect sixteen *asses* or eight *dupondii* for every *denarius* lost.

Ninety coins (50 copies, 46 of which were Claudian copies, 2 Agrippan, and 1 Augustan) were deposited west of the Walbrook, 54 (19 Claudian copies) on Cornhill, and 35 (15 Claudian copies) in Southwark – although comparing absolute quantities is not a valid method to compare coin use and loss because of the differences in excavated areas and sediment volumes. The proportions of the assemblages from each zone represented by copies is greatest on Ludgate Hill (55.56%), followed by Southwark (42.86%), and least on Cornhill (35.19%). As the relationship between military sites and Claudian copies (Hammerson 1978) has been refuted (Hammerson 2002 and [page 17](#), above), a different explanation for the variation in the internal proportions of copies in the different areas is needed.

Because of the lack of new copper-alloy coinage in the later reign of Claudius and early reign of Nero, when the Lyon mint was closed, most Claudian copies date to closer to AD 60 than AD 41 (Boon 1988: 119, 121), and so there is a chronological element in the proportion of Claudian copies in a given assemblage. Areas where occupation commenced before AD 54 should have a stronger representation of official Claudian issues, and areas where occupation began later a greater frequency of copies. The Cornhill could, therefore, have been the earliest settled area in Londinium as its coin assemblage has the lowest proportion of copies and certainly such an interpretation of the coin-loss patterns fits well with the structural evidence presented in [Chapters 3 and 4](#). The pattern does not bear out the structural evidence for Ludgate Hill (which has several examples of multiple building phases and appears to have been settled earlier, although it has the highest frequency of copies) and Southwark, although it may add a new level of interpretation to the evidence.

Contextual associations

The most frequent contexts for coin deposition on Cornhill are in Boudican fire debris (12.96%), Group 3 external deposits (14.81%), and make-ups for Group 3 (11.11%) and Group 2 (7.41%) buildings. On Ludgate Hill the pattern is similar, but perhaps more strongly associated with fire debris; nearly a third (32.22%) of the coins derived from fire debris and the coins in Group 3 make-ups account for 24.44%. South of the Thames the greatest proportions of the coins were deposited in make-ups (17.14%) and floors (14.29%), and fewer coins derive from fire debris (8.57%), but there are more in occupation-debris deposits (11.43%), both of which are likely to represent coins lost during the destruction of the building.

Of the 179 coins, only 14 (7.82%) were found in the potentially public areas of roads, in roadside ditches, proto-forum, and waterfront, which could indicate that coin-loss patterns do not necessarily reflect commercial areas or that the assumption that the public areas were

associated with commerce is misguided. The greatest proportion of coins has been found associated with the use of buildings, in yards and occupation and destruction debris (41.9%), and the second greatest in association with the construction of buildings in deposits where they could not be found, retrieved, and put back into circulation (29.61%). External deposits not necessarily associated with buildings account for 27.93% of the coins.

Intentional burial

The hoard at Site 85 (see site location on [Figure 31](#)) probably dates to the pre-Boudican period because the latest coins in it are Claudian, but it was not excavated in a secure context. It is composed of eighty-nine silver-plated copper-alloy *denarii* ranging from Republican coins dating to 90 BC through those from the reign of Claudius. The hoard was among the material in the private collection of Charles Roach Smith sent to the British Museum in 1856, and nothing of the context other than a general find spot of ‘a house in St. Swithin’s Lane, King William St.’ is known about it (Lawrence 1940). These copies were all struck, not cast, and several were made with the same dies, although there is a wide variety among them.¹³

These coins would certainly have been counterfeit and, unlike the Claudian copies, would not have been produced with official sanction and are probably the result of fraud by personnel at the mints; at least two of the coins were produced from false dies moulded from originals (Boon 1988: 103, 111). As the rest of the pre-Boudican assemblage contains only one other silver-plated *denarius* they do not appear to have been common in circulation, although circulation patterns and loss patterns may not be similar. The hoard itself could have belonged to a

moneyer or administrative official who could not melt them down and kept them together for some other purpose. Or perhaps it is evidence that the local administration confiscated plated coins to prevent the undervaluing of local currency. It is the only large hoard from the pre-Boudican levels of the settlement, and so comparisons to diverse practices cannot be made. If the coins were not all plated copies and if they were excavated in a secure pre-Boudican context, one might guess they were stashed away to protect them from pillage by the marauding rebel army. But, as their context is unknown and their composition curious, the interpretation is more difficult.

A similar hoard, although sharing no die groups with the Londinium hoard and using clearly irregular (forged) dies, of 110 silver-plated *denarii*, of which 108 are Claudian, 1 Augustan, and 1 Tiberian, was found in Lakenheath in North Suffolk and interpreted as a forger’s hoard of rejected coins that were buried to prevent detection (Orna-Ornstein and Kenyon 1997: 40). Other hoards of silver-plated coins are known from different periods at no less than twenty-seven sites in Britain as well as other sites in Gibraltar, Augusta Raurica, Athens, Italy, and Switzerland (Orna-Ornstein and Kenyon 1997; Robertson 2000: 442).

The Claudian coin (British Museum R.5074) in the cremation burial on Ludgate Hill at Site 29 (see also [page 71](#)) was a copper-alloy *as* minted in Rome. No other burials in Londinium’s cemeteries contained Claudian coins, indicating that the ritual of depositing a coin for the deceased to use in the afterlife was uncommon in the Claudian/early Neronian period. It is possible that this evidence singles out the deceased and his family as part of a small group in Londinium who did adhere to such a tradition. The finely crafted Egyptian stone vessel used for his inhumation and the coin could indicate that the family and the burial tradition originated in the centre of the Empire, possibly in Rome itself.

Household hoards

One assumes that, upon hearing about the Boudican Revolt, people would have taken their savings with them when they fled the town, and so the recovery of small

¹³ Lawrence (1940) suggested that it was likely that the coins were made with official dies in the locations from which it appears that they derived (e.g. Eastern Empire, Spain, Rome, Gaul, etc.), as opposed to a mint in a single location somehow acquiring a huge variety of official dies. Only further study (see, however, Boon 1988) of these coins could verify whether they were forgeries, as seems far more likely. While such study would be beneficial to resolving these questions, they are not of critical importance to the discussion of coin loss here.

household hoards is likely to be uncommon. Concentrations of coins on the floor surfaces of buildings and in the overlying fire-destruction debris or in small pits in associated yards could represent such small-scale hoards. There are five such examples, four on Ludgate Hill and one on Cornhill. Within the disturbed destruction debris of Site 5 Buildings 2 and 3 (Figure 48), which has produced evidence of literacy, in addition to the quernstones probably identifying a miller, seven coins were found, six of which were copies. Across Ludgate Hill Road 1 the debris overlying Site 5 Building 4, perhaps the house of a soldier or veteran, contained five coins, four of which were copies. In the disturbed debris overlying Site 22 Buildings 12 and 13 (Figure 50) six coins were found, two of which were copies. North of Ludgate Hill Road 1 the debris overlying Site 22 Buildings 23, the dry-goods shop, and 25 next door, contained four coins, two of which were copies. Finally, the destruction debris and occupation deposits overlying the eastern end of the southern proto-forum building (Figure 52), where literate officials and soldiers or veterans could have been overseeing the grain store, produced four coins, two of which were copies. Aside from such possible small hoards, the pattern of coin loss generally is demonstrative of unrecoverable loss and supporting evidence that the community was in the habit of picking up loose change on their floors and in the roads. The lack of coins found on floors indicates that most floors were swept clean and, perhaps, not often covered with rushes or matting that would hide small objects. Those coins lost or left behind in houses when people were forced to flee dominate the find spots, indicating that during that short time coin loss increased dramatically (a possible explanation for the higher proportion of pre-Boudican coins in Londinium than Claudian/Neronian coins on other sites: see page 121), perhaps representative of lost small-scale hoards.

WRITING AND LITERACY

An examination of evidence for writing and literacy may, to some degree, reflect differences in education, social status, occupations, and ethnicity, but writing and

speaking Latin was probably more common, especially in south-eastern Britain, than is sometimes imagined (Hanson and Conolly 2002). Those who wrote were likely to have been writing Latin, and therefore were also probably able to speak Latin and so to communicate with traders, merchants, and military and administrative individuals from other parts of the Empire. Writing enabled record-keeping, accounting, administration, and communication with people living outside Londinium. In the early post-invasion period traders and the military were the people who most used writing, in the forms of writing with ink and with iron styli on the hard wax poured into recesses in wooden leaf tablets, and the assemblage may be suggestive of the presence of and activities related to military and administrative officials, merchants, and traders (Monteil 2008). Undoubtedly, however, people providing legal and other documentary services to clients, those managing complicated business affairs or agricultural estates, and those with long-distance relations and other contacts also had need of written communication. There is evidence of other kinds of literacy and writing, such as graffiti, which may suggest that specialised literacies existed amongst craftsmen and others who used writing in a limited and specific way (Bowman 1991).

Nearly all of the evidence associated with contexts discussed in Chapter 3 for writing implements comes from secondary deposits not associated with use and occupation, which makes comparisons of the prevalence of writing and literacy in the different areas of the settlement impossible. In addition to the military label or tag, which bore an inscription (see also page 113), there were also two wooden writing tablets and two iron styli from the rubbish dumps along Ludgate Hill Road 1 (at Sites 5 and 22: Figure 21) and two inkwells, one of which was made in a Samian fabric (at Sites 22 and 23: Figures 11 and 21). Two more styli, a writing tablet, and fragments of two Samian inkwells were found in association with the waterfront revetment and the gravel foreshore at Site 71 on the Cornhill waterfront (Figure 28). A Samian inkwell associated with the proto-forum metalling (Figure 22) is one of the few indications of the use of that space, perhaps related to trade and/or administration.

The only Group 2 writing object associated with structures is the Samian inkwell from the yard of Site 51 Buildings 15 and 44 (Figure 23), where industrial activities, possibly military, were undertaken (see pages 113–14).

In association with the stratigraphically later pre-Boudican contexts (Chapter 4), there is more to link objects associated with writing to habitation and work areas. On Ludgate Hill there is strong evidence for writing at the eastern end of Ludgate Hill Road 1 near the Walbrook crossing. One iron stylus was found in association with the post-and-stake rectilinear building Site 2 Building 1 in the occupation debris on the floor and another stylus was found in the destruction debris of Site 22 Buildings 9 and 10 (Figure 50). Wooden writing tablets were found in the fill of a well in the yard of Site 22 Buildings 7 and 8 (Figure 49), which also contained military spearheads (see page 113), in the destruction debris of nearby Site 22 Building 11 (Figure 50), and in the fill of the Ludgate Hill Road 5 roadside drain (at Site 1: Figure 48). A Samian inkwell was found in the destruction deposits of Site 5 Buildings 2 and 3 (Figure 48), which replaced the earlier round building south of Ludgate Hill Road 1, and another was found in a ditch/drain in the yard associated with Site 22 Buildings 9 and 10 (Figure 50).

Two other inkwells were deposited in the make-up dumping for Site 22 Buildings 12 and 13 (which dates to AD 52/53 or later: Figures 49 and 50) along with an iron stylus, but these are in a secondary deposit, like one other iron stylus from a construction context in Site 2 Building 1 and the lead cylindrical box inkwell with a lid that was found in a wall of Site 22 Building 6 (Figure 49). Yet even without these items it is clear that people living at the eastern end of Ludgate Hill Road 1, including those who built in an indigenous construction style, used both forms of writing.

On Cornhill, Samian inkwells in make-up and construction deposits of the southern proto-forum building (three inkwells: Figure 52), of Site 51 Building 16 (one inkwell: Figure 54), and of Cornhill Road 9 (one inkwell: Figure 54), and a copper-alloy inkwell from a structural cut of Site 51 Building 16 provide secondary deposition

evidence of writing in ink. The single inkwell associated with a yard or use deposit on Cornhill was found in the yard near Site 49 Building 5, a small ancillary structure behind the southern proto-forum building (Figure 52). Across the street, in a yard deposit associated with the large, masonry-founded aisled hall (Figure 52), an iron stylus was found, indicating that writing on wax tablets also occurred in the Cornhill core settlement. South of the Thames an inkwell was also found in the destruction debris of the buildings at Site 101 on the northern eyot (Figure 59), indicating that some people in the community there were literate and used ink to communicate in writing, but there is no evidence of writing on wax tablets.

Areas of yard use, occupation debris, and artefacts in destruction debris that have associated military artefacts are also the areas with concentrations of writing implements (Site 22 Buildings 7/8 and 11, Site 51 Buildings 15/44, and the southern proto-forum building Site 49 Building 2), west of the Walbrook crossing and east of the proto-forum in association with the largest structure in the town, and south of Cornhill Road 1 at the eastern end (only in the earlier period, however). These could be locations where trade and administration are most likely to have been concentrated. That objects related to writing are not found in all assemblages indicates pockets of activities requiring writing located in specific areas, west of the Walbrook crossing on both sides of the road, east of the proto-forum on both sides of the road in association with the two possibly public buildings, south of Cornhill Road 1 in association with an external metal-working pit in the earlier period, and on the northern eyot, perhaps in association with a grain store, a baker, or a blacksmith at Site 101 (see Figure 59 and pages 116 and 118).

Graffiti

Graffiti provide other evidence of literacy, probably representing writing that had different purposes and significances than ink-and-nib or stylus-and-tablet writing. In

association with contexts discussed in [Chapter 3](#) there are eight potsherds bearing graffiti and eleven in association with contexts discussed in [Chapter 4](#). The only graffiti associated with early occupation deposits was a Samian dish scratched with the word 'SOLV[' or 'POLV[' found in the same yard deposit as early military equipment and an inkwell already mentioned south of Cornhill Road 1 at Site 51 ([Figure 23](#)). Five other sherds bearing graffiti were found in Ludgate Hill Road 1 rubbish deposits and two in Southwark Road 1 rubbish deposits. One of these, a bodysherd of a locally produced grog-tempered jar bore a post-firing 'M' (at Site 100: [Figure 11](#)).

In association with later pre-Boudican strata ([Chapter 4](#)), a Samian bowl incised with a graffiti reading 'VIINS' was found in the yard of Site 22 Buildings 9 and 10 ([Figure 50](#)), north of Ludgate Hill Road 1, and another sherd of Pompeiian red ware with a graffiti was found in a yard associated with the large masonry-founded aisled hall ([Figure 52](#)). Other graffiti were found not in association with structures, for example the illegible examples near Cornhill Road 2, on a coarse ware jar in the floor slab at Site 56 Building 1 ([Figure 56](#)), and on a Samian sherd in the make-up Site 73 Building 1 ([Figure 56](#)). A Samian cup with a graffiti representing an 'M', perhaps a mark of ownership, was discarded in the make-up and levelling layers of Site 22 Buildings 12 and 13 south of Ludgate Hill Road 1 ([Figures 49 and 50](#)). South of the Thames one of the three sherds bearing graffiti found in the fills of quarry pits on the southern eyot (at Site 94: [Figure 32](#)) was a grog-tempered jar bearing the letters 'RIS', another was a shell-tempered jar with a Mucking-type graffiti, and the third was a Samian plate with an illegible mark.

The graffiti could represent personal names, which is very common among graffiti (Hanson and Conolly 2002: 153), perhaps as marks of ownership. It is, however, impossible to be certain of any other significance than that people scratched into these sherds letters in the Latin alphabet, demonstrating that people used Latin in different ways for diverse purposes, which is likely to identify different groups of people, levels of education and literacy, ethnicity, and economic status.

RELIGIOUS AND RITUAL ACTIVITY

It may be possible, through an examination of structured deposits and objects with cult associations, to suggest and identify ritual activities. Although no building has been identified as a temple and there is no large 'votive'-type deposit in early Londinium, it is possible that this area on the Thames held special symbolic significance before the construction of the town, which may have continued to be recognised after the Claudian invasion. It is, of course, impossible to date the deposition of LPRIA objects found during dredging of the Thames (see [page 8](#)), and there is no reason they might not have been deposited there in the early Roman period. It is safe to assume that there were diverse beliefs and activities related to a religious system among the population of early Londinium; the likelihood is that most religious and cult activity was centred around the household and that no public centres of devotion were yet constructed in Londinium. Because each deposit type is different and the objects associated vary greatly, it seems very unlikely that a unified religious framework was adhered to by all people in the town. The evidence from early Londinium seems to support individualism and diversity of experiences and religious expression.

Human burials

Human burials at Sites 20 (two adult male inhumations, one with a dog), 23 (neonate inhumation), 29 (seven cremation burials, one with Claudian coin likely to be pre-Boudican), 54 (adult male torso inhumation and twelve-to-fourteen-year-old female cranium inhumation), 59 (several cremation burials), 72 (at least five cremation burials, heavily disturbed), 75 (single cremation, possible foundation deposit), and 96 (single cranium inhumation) likely to be pre-Boudican have been discussed in [Chapters 3 and 4](#) (see [pages 53–5 and 71–2](#)), primarily as they related to settlement boundaries and the growth of the town; the burials at Site 21 (cremations and inhumations) are less securely dated. The Bank Street (single cremation burial in an amphora) and Harper Road (single female inhumation) burials could be Claudian/early Neronian,

although they have not been assigned site numbers here because of the uncertainty of their dating. Cremation burials had not been common in southern Britain from the LBA to the LPRIA, when cremation as a burial rite increased, as did imports of Continental material culture (Wait and Cotton 2000: 117). In the London area, however, LPRIA inhumations are more common and prestige burials of the Welwyn type are unknown (Greenwood 1997). The Iron Age practice of depositing skulls in the Thames (Marsh and West 1981) may be seen as continuing in the deposition of skulls in Walbrook (see pages 5 and 23) and in the inhumation burials at Sites 54 and 96.

The vessel used for one of the cremation burials at Site 29 was a fine stone urn from Egypt (see page 71; British Museum 1993,0102.12), which may be evidence that the deceased man and his family were high-status immigrants, perhaps from Rome (the Claudian coin – British Museum R.5074 – in the burial was minted in Rome), where Egyptian objects were popular throughout the Julio-Claudian period (Gargarin and Fantham 2010). The Claudian coin placed in this vessel provides a *TPQ* indicating that it could be pre-Boudican; this coin is also significant in that no other burials in Londinium contain Claudian coins. The nearby cremation in a glass urn (British Museum 1993,0102.11) held within a lead canister (British Museum 1993,0102.18) bearing relief scenes of the god Sol riding his chariot across the sky cannot be related stratigraphically because the 1881 excavation conditions (Tylor 1884) did not allow for such relationships to be recorded. The complex glass urn was undoubtedly imported, as glass-working was unknown in London until the Flavian period (at Site 71: see Bringham and Watson forthcoming). If the Sol canister were pre-Boudican, it would be the only evidence of the worship of a specific deity in the period in Londinium; in the Republican period in Rome, Sol Indiges was an important local sun god (Halsberghe 1972).

Animal burials

While most animal bones are probably remains of butchering or consumption, some special instances may represent votive offerings, such as fully articulated

skeletons and the bones of non-food animals (Hill 1995). As companion and work animals, horses and dogs were not normally consumed as food by the Romans or native British (Cool 2006: 91), and the presence of their bones may indicate ritual burial of some kind (Hyland 1990; Smith 2006: 43). A dog was included in the double inhumation burial at Site 20 (see page 54), linking the ritual of human and animal burial.

Equine bones have been found in the backfill of two of the earliest large ditches, one at Site 20 south of Ludgate Hill Road 1 (Figures 7 and 18) and the other at Site 56 north of Cornhill Road 2 (Figures 7 and 24). At the former site the deposit contained two bones from the lower part of the hind leg of a young foal, while the other contained the articulated leg of a horse.¹⁴

A 28-centimetre (diameter) pit cut through the floor of Site 67 Building 3 east of Cornhill Road 7 (Figure 22) contained the contracted, articulated skeleton of a young sheep/goat. This deposit is similar to a foundation deposit, but post-dates the construction of the building and its floor. No burials of whole articulated animals are known in the later pre-Boudican deposits (Chapter 4). The skull, forelimb, and ribs of a neonatal lamb were found at the base of a well in the yard associated with Site 22 Building 2 (Figure 49), which was rebuilt as the much-larger Site 22 Building 3 (Figure 50). The well underlies the later building, and the deposition of the lamb may have been part of a ritual filling of that well. Other objects in the well's fill were a variety of sherds of coarse ware jars, flagons, a mortarium, olive oil and fish sauce amphorae, and Samian ware.

A horse ulna found in the occupation debris of Site 101 Building 6 (Figure 59) does not appear to be a structured deposit, as it was simply lying on the building's floor. A dog bone from a nearby ditch also seems to have been casually discarded, and three other horse bones were found in a ditch in the yard behind Site 51 Building 16

¹⁴ In another section of the same ditch near Aldgate (at Site 44: Figures 7 and 24) the handle-grip of a legionary *gladius* was also found in the fill, perhaps indicating a military connection with the possible ritual filling of the ditch.

(Figure 54). This pattern of horse and dog bones seems unrelated to structured deposition.

Special deposits

Evidence of everyday objects deposited within discrete features are sometimes interpreted as rubbish pits and at other times as ‘special deposits’ (after Hill 1995). A growing awareness of the variety of the Romano-British tradition of hoards and other symbolic, structured deposition within settlement contexts has been highlighted by Fulford (2001), who reminds us that such deposition may have its roots in the pre-Roman Iron Age and must be considered in areas apart from temples, graves, and other contexts more usually interpreted as ritual deposits. Identifying special deposits is, of course, problematic and subjective, but an attempt has been made here to analyse the assemblages from building foundations, pits, ditches, and wells as a profitable place to start. Although no other structured deposits have been identified as ‘special deposits’, there are many pits filled with animals remains, broken vessels, or other artefacts that could have had special significance in the past, but that we generally interpret as rubbish (Hill 1995). Ritual burial of objects and animals is often identified by their being complete or articulated, or ritually ‘killed’, and if the same objects are deposited fragmented or unarticulated we rarely discuss them as meaningful assemblages. Because some of the pits, wells, and intrusive features underlying buildings have produced such whole objects and articulated skeletons, it is possible that similar features without such objects were also locations of ritual deposition. Certainly, more work could be done on these deposits, especially to compare them with assemblages from other pre-Flavian sites in the south-east.

A sword-grip associated with the construction of Ludgate Hill Road 1 and the fist-and-phallus amulet found in a peat deposit beneath Southwark Road 1 may have represented symbolic or votive deposition related to ensuring a safe and solid road. These objects were not lost in remote locations, difficult to retrieve, and a sword is not the sort of object one would lose and not search for.

Two copper-alloy mounts, one in the shape of a lion’s head, two fragments of stone querns, and sherds of assorted pottery were found in the same context. It does not seem to be a meaningful assemblage suggestive of a structured deposit, but the sword-grip is unlikely to have been casually lost during road building. Although fairly meagre, this evidence could represent a pattern of special deposition during road construction, possibly by soldiers or veterans. There is supporting evidence that soldiers or veterans in Britannia discarded armour in a ritual fashion: in Verulamium a well-preserved whole helmet was possibly ritually deposited in a marsh, which might account for its excellent preservation although its actual find spot is unknown, and carefully buried fragments of *lorica segmentata* were found in a pit in a corner of a funerary enclosure at Verulam Hills Field (Niblett 2001: 58).

A small pit in a yard associated with an early building north of Cornhill Road 4 at Site 47 (Figure 26) contained a nearly complete Lyon ware cup, a bone die, four carved onyx and agate gemstones (see Henig 1984a), and fragments of glass and pottery. Such a collection of objects suggests possible structured deposition, probably a hoard or a ritual special deposit. The intaglio gemstones were carved with the images of the goddess Roma in an Attic helmet, a *iunctio dextrarum* motif symbolising marriage, Pegasus, and a discus-thrower holding a palm of victory. Intaglio devices bore great significance for their wearer (Henig 1984b: 180), although these particular intaglios were not set into rings or other items of adornment. The association of these objects with the cup and bone die may have had some further significance, beyond their protective powers and symbolism of devotion, to the person who placed them in this pit, perhaps even related to gambling and winnings (see also page 119, above; however, there is evidence that jewellery makers might have hoarded collections of their products, including gemstones).

A small pit inside Site 51 Building 14 south of Cornhill Road 1 (Figure 54) contained a coarse ware pot inside another pot, in addition to other fragments of local coarse ware jars. It may have been a foundation deposit or other

special deposit related to that building, and perhaps the vessels originally held significant and symbolic contents, such as food, wine, or oil. It is similar to the jar deposited beneath the make-up for a building at Site 75 (Figures 15 and 22), although that deposit was a cremation burial containing charred material.

The fill of a large gravel-quarrying pit in the acute angle formed by Southwark Road 1 and Southwark Road 2 (at Site 107: Figures 35 and 41) contained a bone spoon, a copper-alloy key, fragments of a glass pillar-moulded bowl, an irregular coin of Claudius, iron slag, and an assortment of sherds of coarse ware jars, flagons, beakers, and mortaria, along with Samian bowls, dishes, and cups. Although none of these objects is particularly religious in nature, they comprise a large and diverse assemblage in a significant and deep feature underneath later buildings that would have required filling before it could be built upon (although the buildings there date to the Flavian period). Another example is a disused well associated with the earlier phase of Site 22 Building 8 (Figure 49), which underlies Site 22 Building 25 (Figure 50), south-east of the well mentioned above containing the neonatal lamb. It contained bones of cattle, pig, and sheep/goat, and sherds of a mortarium, local coarse ware jars, Samian bowls, dishes, and cups, olive oil and wine amphorae, as well as a copper-alloy mount, a wooden writing tablet, a lead weight, and two coins. Like the other well nearby, this well was only in use for a short period of time, and its destruction by filling with debris may have had a special significance. Perhaps investigations of filled intrusive features underneath later buildings, and not just those interpreted as ‘foundation deposits’, might be a way forward to understanding the significance of certain deposits as related to possible apotropaic, pre-construction ritual activities.

Objects with religious significance

There are a handful of objects that are likely to have had religious significance. A *patera* was found in the particularly rich early yard deposit associated with buildings south of Cornhill Road 1 at Site 51 (Figure 23). *Paterae*

served a key role in religious activities in their function to prepare devotees with ritual ablutions and to enable the relatively inexpensive sacrifice of wine in pouring out a libation to the gods. Another ceramic *patera* found in a later pre-Boudican yard associated with Site 22 Buildings 9 and 10 (Figure 50) and the bell in the destruction debris of the same structures may have been used in conjunction with one another for a religious purpose. Another copper-alloy bell, found in the occupation debris of a later pre-Boudican building south of Cornhill Road 1 on Cornhill at Site 50 (Figure 52), could have also had a religious function. As in the modern day, however, bells may have been used to mark important parts of cult activities, or they may simply have been used to signal the opening of a door, presence of a visitor, or movements of an animal.

In the context of pre-Boudican Londinium, *paterae* probably did not function as part of cult activities in a centralised location. The two pre-Boudican *paterae* have been found in yard deposits associated with a variety of activities, and there is no structure that appears to be a shrine, temple, or other cult centre. Their find spots could be indications of household devotions and sacrifices, perhaps related to similar activities as *lares* and *penates* household shrines.

Lamps, by providing artificial light, would have created a special atmosphere and may have had a part in ritual activity (Eckardt 2002: 95; see also pages 131–2). Related objects, such as *tazze*, may have had some kind of ritual use in addition to less symbolic functions. *Tazze* may have been used as incense burners or as lamp-holders because several examples have burning on the interior, and they may have been displayed or raised on poles because of their high base cavities (Davies et al. 1994: 51). These functions are often thought, possibly, to have been associated with ritual and religion (see pages 131–2, below, for more on *tazze*).

A copper-alloy phallus figurine or amulet was found in the Boudican destruction debris of Site 5 Building 4 (Figure 48) in association with two coins, a military horse pendant, and a variety of pottery. Phalli were potent and symbolic apotropaic devices, and phallic

amulets are often found on military sites (Crummy 1983: 139). The association with the horse pendant in this significant building assemblage suggests that both objects were used by the same person or household and may support the military interpretation, not only of the objects but of the occupant. A lead devilish amulet or pendant, probably used apotropaically, was found in the make-up dumps south of Ludgate Hill Road 1 for Site 22 Buildings 12 and 13 (Figures 49 and 50), and could have been lost by its wearer during construction or transported to the site within quarried material.

There is no pattern of deposition of objects with possible religious significance that would suggest a votive centre, such as a shrine, important body of water, or temple. It is possible that objects of religious significance would have been highly valued and taken away as people fled the town. Like the animal burials and special deposits, these objects are found associated with buildings, in their yards and interiors.

PREPARING, ADORNING, DRESSING, OR MODIFYING THE BODY

Similar to the pattern demonstrated by the coins, the objects of dress and adornment are made of low-value materials. There is ample evidence from across the site of adorning the body with finger-rings and bracelets, dressing hair with pins and combs, applying oils, unguents, and/or perfumes using *ligulae* and glass phials, using the reflection of mirrors to prepare (or to confirm the adequacy of the preparation by a slave or helper of) one's hair and make-up, fastening clothing with copper-alloy brooches, and wearing armour, leather clothing, and shoes.

There are fragments of 197 objects related to these activities in the project database from 24 sites (out of 49 sites with registered small finds), 10 on Cornhill, 6 in Southwark, and 8 on Ludgate Hill. Examining broad statistical patterns, for example with the assemblage of brooches (see e.g. Bayley and Butcher 2004; Eckardt 2005; Plouviez 2008), necklaces and bracelets (Swift 2003), or nail cleaners (Crummy and Eckardt 2003; Eckardt 2005), is not viable because the quantities are too small (the

assemblage contains 1 earpick, 2 nail cleaners, 5 bracelets, and 43 brooches, but only 18 of identified type). Re-examining the assemblages held by the archive for sites where the data tables contain little detailed information could be a promising course of action. As has been mentioned before, however, the differential sampling, volumes of sediment excavated, preservation, recording, and post-excavation analysis at the different sites make inter-site statistical comparisons difficult. While internal proportions of materials within one site could be compared to another, the absolute quantities are too low to allow for such analysis: there is not a large assemblage related to adorning, dressing, and modifying the body at any of the sites. Examining the assemblage as a whole also does not provide a great deal of information; the general quantity of personal adornment, however, is relatively high. The problematic nature of comparing absolute numbers of artefacts between sites has already been discussed, but the numbers appear high for an assemblage that was lost or discarded in only a decade. There were, for example, about twelve brooches from Periods 1 and 2 at Colonia Claudia, in comparison to the forty-three from Londinium during a shorter chronological period. These numbers should indicate approximately equal brooch use (see note 6) and, perhaps, similar patterns of dress in the two populations.

The primary problem in interpreting Romano-British adornment objects is a lack of analogy to develop a framework of symbols and social significances. Personal choice and axes of social difference are not well understood in Roman Britain because of the lack of documents, sculpture, paintings, etc. from which we could draw interpretative analogies. Studies that attempt to redress the lack of analogy by assessing patterns in large bodies of data often examine dress and adornment assemblages at a regional level and are inherently flawed because the resolution is far too poor to understand how and who used objects, and what the significant structural, spatial, material, and social associations were. Such studies also often organise their assemblages with relation to sites that have been labelled with a type, for example 'urban civilian' or 'military'. They also examine assemblages of objects

deposited over three centuries or more, often during periods of dramatic change within the settlements in question. These methods ignore the fundamental diversity and dynamism of urban centres, especially of populations found in towns, forts, *coloniae*, and *vici*, as well as the volumes of excavated sediment, excavation areas, site-formation processes, and preservation conditions. We ought to be more circumspect about the significance of such low-resolution, broad patterns that are probably more closely related to the locations of population centres, ancient loss patterns, preservation conditions, modern excavation strategies, availability of sites for archaeological analysis, and research agendas.

Dress, adornment, and methods of preparing and altering the body communicate aspects of a person's age, gender, class, status, and ethnicity, both tacitly and implicitly; whether we have a way of understanding these things or not, they certainly existed as meaningful components of social discourse in the ancient world. Linking the signals (artefacts) to the signified (aspects of identity) is impossible without analytical frameworks, which would, ideally, be developed from as close to the site in time and space as possible. The cemeteries of Roman London offer an opportunity to link age and gender to objects of adornment, although the 300-plus years of burial in these cemeteries makes the time component difficult. Also, the link between dress and adornment in life and dress and adornment of the dead is likely to have been different, in the same way that different social context would require a person to dress differently at different stages in his or her life. Examination of 911 burials from 4 Roman cemeteries in London (the Eastern Cemetery (Barber and Bowsher 2000; Whytehead 1986), the Western Cemetery (Watson 2003), the Watling Street Cemetery (Mackinder 2000), and St Bartholomew's Hospital Cemetery (Bentley and Pritchard 1982)) shows that only 52 burials (5.71 per cent) contained objects of dress and adornment, both worn and unworn, producing a total of 95 objects. The unworn objects could be gifts to the deceased, but the worn objects are more likely to have been objects that the deceased might have worn in life. The cemetery group most often buried with worn

adornment, however, were children aged six to eighteen, which probably indicates that even worn adornment was more related to symbolic gifts and ritual dress for death. In these cemeteries there are men buried wearing bracelets, anklets, and non-signet rings as well as with beads, all of which are generally considered to be 'female' items of adornment (Allason-Jones 1995: 27; Croom 2000: 71). Therefore, in this particular population, it does not appear that assigning gender or age associations to objects of adornment and dress based on burial evidence, modern analogy, or ancient texts is possible.

If the motive for examining assemblages of dress and adornment is to understand which people used what things and thereby understand how that would have communicated aspects of their identities, and to attempt an interpretation of the meaning and significance of the symbolic alterations of the body, then developing a link between where people lived, how they lived, and what types of dress and adornment they engaged in could be a fruitful step forward. For example, linking the occupants of round houses to types of adornment or isolating the objects that were found only in association with occupation in the grid-planned core. Most small, valuable objects would have been taken away when people fled before the Revolt, or would be picked up if at all possible when lost inside a building, however, which makes such an undertaking difficult. Because many objects related to dress and adornment were worn on the person, their find spots are often related to loss, not to use.

Looking specifically at the assemblage of objects in occupation debris on floor surfaces and in the fire debris overlying buildings is the most promising way of developing a significant link between particular places and modes of dress and adornment. There are twenty-four such objects in this assemblage, four of which can be considered as military objects (armour in Site 22 Building 11 and the southern proto-forum building and a horse pendant – which arguably has more to do with communicating aspects of the rider's identity than the horse's – at Site 5 Building 4, where the phallus figurine was also found). In association with the armour in the southern proto-forum buildings (Figure 52) were two brooches,

one of which was a possible Colchester brooch. An aesica-type copper-alloy brooch was found in association with the miller/baker/quern dealer in Site 5 Building 2/3 (Figure 48) and a string of twenty-seven wooden beads, preserved by carbonisation in the fire, was found in the pottery-and-dry-goods shop, Site 22 Building 23 north of Ludgate Hill Road 1 (Figure 50), which could have been for sale or a possession of an occupant. A glass bead and an iron pin were found in association with the rectilinear and round buildings at Site 13 (Figure 43). South of the Thames the destruction debris overlying the eight buildings at Site 101 (Figure 59) contained a glass melon bead, a copper-alloy buckle, and a *ligula*.

Other types of deposition reveal similar diversity in the deposition, with no clear patterns, associations, or relationships. Listing the objects and where they were found is not beneficial to the interpretative method employed here. These objects do reflect the importance of symbolic communication through materials and the body, although it does not seem possible to link social traits to particular artefacts with the information that we currently have. None of the objects is made of a particularly rare or expensive material, but their styles, decorations, and other attributes would certainly have carried significant meaning to the wearer and the observer.

The amber bead associated with the burial at Site 20 (Figure 18) is evidence for some kind of religious significance perhaps being attached to adornment objects specifically in this period (as opposed to the burials outside the settlement, which are difficult to date), and it is likely that many such objects had apotropaic, magical, and superstitious functions in addition to their probable symbolism of status, age, gender, and ethnicity. We may be able to draw a link between the round building Site 5 Building 1 (Figure 21) and the wearing of double brooches, one on either side of the chest, connected by a chain in the so-called Menimane fashion (Wild 1968), although the brooch chain on that site was found in a possible rubbish-dumping context. There are no discernible patterns of objects, however, only isolated finds. The only absolute is that there is no evidence of

military dress or adornment in Southwark,¹⁵ although it does exist both east and west of the Walbrook.

The handle of an *aryballois*, a globular glass oil jar associated with bathing that would have had a strap attached to the handles for carrying on the wrist, was found in a posthole from Site 72¹⁶ and may indicate formal Roman-style bathing and oiling of the body (Wardle 2008). The narrow-necked glass phials found all across the settlement could have been *unguentaria* also associated with post-bathing anointing of the body with oil or perfume (Anderson-Stojanović 1987). There are no earrings and no seal rings or intaglio stones (except those from the special deposit at Site 47, which were never mounted or worn) in the assemblage, nor any objects of silver, jet, amber, or gold. There are also no strigils, no tweezers, and no combs. Besides the mirrors, the only items for grooming are an earpick in a secondary or tertiary context at Site 22 and a nail cleaner in a marsh deposit at Site 91 in Southwark. The assemblage describes a community where social differences were communicated and reflected in the way of preparing the body, but groups of people, patterns of use, and significance associations and relationships are not apparent.

ILLUMINATING

The material evidence of illuminating survives in the form of ceramic lamps and lamp-holders, and a copper-alloy chain that may have been used for a hanging lamp, although the chain was found in a secondary context (the make-up for Site 22 Buildings 12 and 13: Figure 50). The total number of lamps (c. 41) is far fewer than found in the contemporaneous phases at Colonia Claudia (c. 84: see Eckardt 2002: 67, fig. 28), and yet London has been far

¹⁵ NB: Drummond-Murray et al. (2002: 49) state that armour (a fragment from a buckle of *lorica segmentata*) was found in pre-Boudican levels at Site 101; the artefact catalogue (which is followed here), however, puts it in a context associated with Building 27, dated to the second century (Wardle 2002:229 (same volume)).

¹⁶ NB: Shepherd (1993) cited this object as being in an unphased pit, but the archive report (Brigham et al. 1990) placed it in subgroup N9, associated with the pre-cemetery open area pits, ditches, and quarrying.

more extensively excavated (see note 6). In contrast to Colonia Claudia, the low number of lamps in Londinium is strongly suggestive of a non-military community (Eckardt 2002: 153).

The lamps associated with contexts of the earliest settlement discussed in Chapter 3 all derive from secondary deposition and were not found on the same sites as the lampholders and *tazze* (see also page 128): on Ludgate Hill three examples come from dumping along Ludgate Hill Road 1 at Site 5 (Figure 21), one from what might be a yard deposit associated with the round building on the same site, or might be continued roadside dumping; on Cornhill one lamp was found in the make-up and levelling deposit preceding the construction of a building at Site 56 near Cornhill Road 2 (Figure 24), and the other was found within the floor layer of a building at Site 50 south of Cornhill Road 1. Because of these find spots it is not possible, therefore, to link the usage of these lamps, lamp-holders, or *tazze* directly with use and occupation of particular spaces.

Lamps did not become more common in the later settlement, and have only been found at ten sites in association with the later contexts discussed in Chapter 4, and only at six in occupation/destruction debris or yard contexts. In use contexts (i.e. yards, occupation, and destruction debris) on Ludgate Hill, fragments of two lamps were found in association with Site 22 Buildings 23 (the possible dry-goods shop) and 25 north of Ludgate Hill Road 1 (Figure 50). A *tazza*, possibly used as a lamp-holder or an incense burner, was found across the street and further west, at the buildings of the possible miller (Site 5 Buildings 2 and 3: Figure 48). East of the Walbrook several fragments of five lamps were found at Site 50 (Figure 52), both before and after construction of the masonry-founded building; fragments of a lamp-holder were also found in association with that building (the aisled hall). Fragments of three lamps were associated with a building with painted plaster walls and a timber-lined drain south of Cornhill Road 1 (Site 51 Building 14: Figure 54) and fragments of three lamps and a lamp-holder were found in association with the possible courtyard building near Cornhill

Road 4 at Site 79 (not illustrated; see site location on Figure 31 and approximate location of building on Figure 40). A lamp in the shape of a sandalled foot and a lamp-holder/incense burner were found on the northern eyot in association with the yard of the possible bakery at Site 101 (Figure 59).

Most of the lamps and lamp-holders in the project database were produced in Gaul and south-eastern Britain, while all of the *tazze* were locally manufactured in Britain. There are also a small number of lamps imported from Spain, but no other sources are attested (Figure 68). The choice to illuminate the interior of a building with a specialised object, such as an oil lamp, had significant social importance and seems to have been related to the craftsmen's residences as well as the merchants and possible public buildings. Lamps could have reflected economic status: those who could afford the oil could have lamps. Lamps also reflect the other activities for which interior lighting was required, such as dining, writing, and reading after dark, and several of the buildings where evidence for writing was found also produced lamps and lamp-holders (Site 5 Building 2/3, Site 22 Building 23/25, the aisled hall). The correspondence between these types of objects, and therefore between education and wealth, is probably significant and supports the idea that lamps would have symbolised the social status of the occupants and enabled certain behaviours, such as Roman-style dining (Eckardt 2002). Their overall rarity in the pre-Boudican settlement indicates that they were only used by a small part of the society, probably indicating a status hierarchy dominated by craftsmen, merchants, and the administrative authority.

FOOD AND DRINK

There is a variety of artefact types and features associated with preparing, storing, serving, and consuming food and drink, including hearths, animal bones, glass, ceramic, and wooden vessels, stone querns, and bone and metal utensils. Because of preservation and ancient reuse and

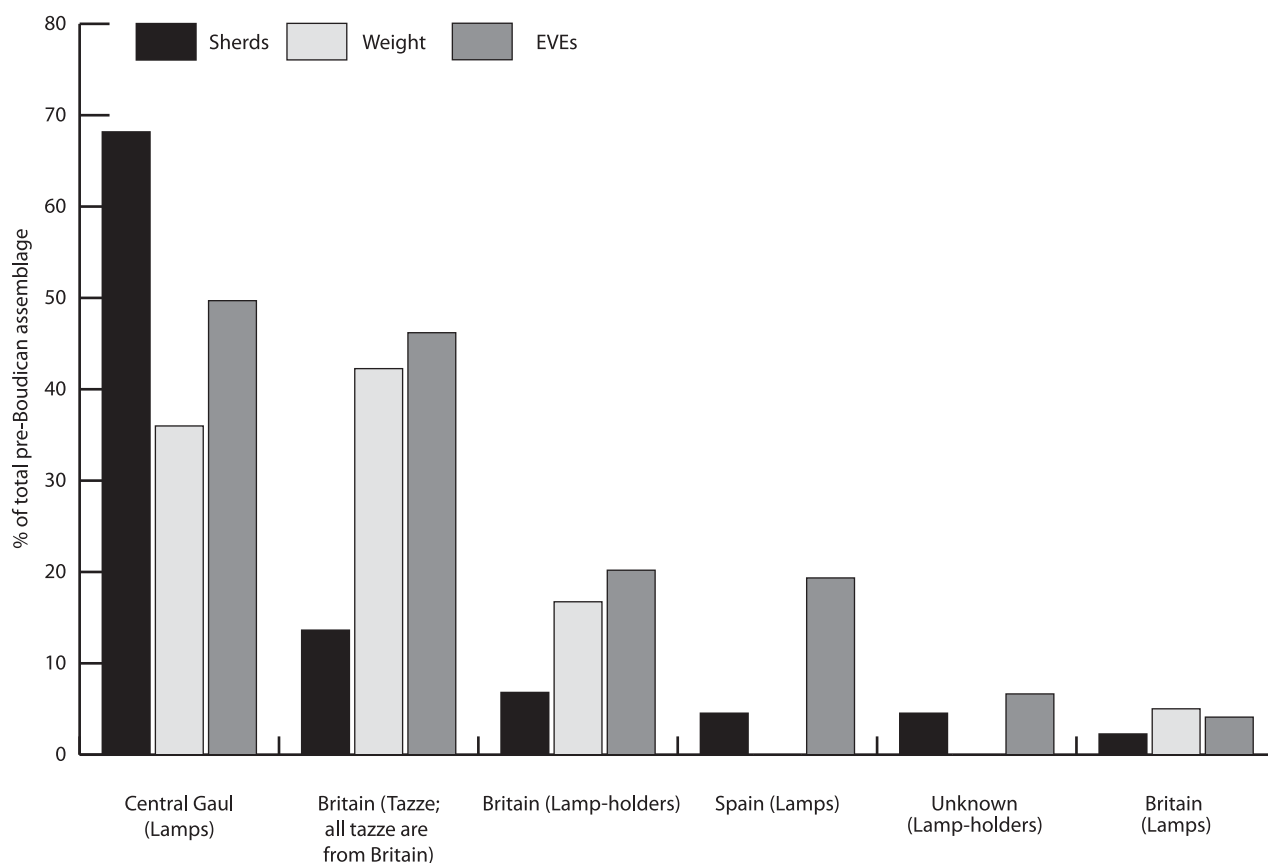


FIGURE 68 Bar graph comparing the origins of lamps, lamp-holders, and *tazze* from all Groups.

recycling, however, ceramic¹⁷ vessels make up the largest proportion of objects related to food and drink.

Acquiring and preparing food

Acquiring food to eat in early Londinium probably involved a complex economic network of markets, carters, merchants, owners of large farm estates, small-holders, shipping agents, storehouses, and consumers. The material remains of these activities are relatively limited because food is organic and consumed, and often does not survive archaeologically. Objects related to hunting, animal husbandry, agricultural activities, and

preparing food, as well as animal bones (where the data were available) are used to support this discussion.

An iron ox-goad found in a pit associated with the early pre-Boudican building Site 22 Building 1 (Figure 21) suggests possible ploughing with oxen and agricultural activity (although no field systems are known near the study area) or the presence of a carter using oxen. A flesh hook and a spear from the destruction debris of Site 22 Building 11 north of Ludgate Hill Road 1 (Figure 50) might indicate the meat-preparation premises of a game hunter.¹⁸ The earthen bank enclosures on the northern Cornhill at Site 41 (Figure 32) and the fence-and-ditch

¹⁷ Consumption patterns of early ceramics have been discussed by Davies et al. (1994) and are not a significant part of the current study as space does not allow for such an undertaking, which could form the basis of an entirely independent and separate book.

¹⁸ Hill and Rayner (2011) interpret this building as a tavern or eating-house based on large fragments of amphorae, remains of high-status food waste, and a high proportion of Samian forms (re-deposited finds within the post-Boudican OA41 dumping not included in this project's database).

enclosure with associated bovine hoofprints on the northern eyot at Site 98 (Figure 41) probably indicate that animals were either husbanded in these small farms on the fringes of the town, or that they were driven into town from outlying areas for sale and slaughter. The butchering/consumption debris on the southern part of the southern eyot (see also page 117) perhaps indicates that the lambs were also driven to Londinium from farms to the south.

Animal bones are probably the best evidence for meat preparation and consumption (e.g. as in the synthetic work of Cool 2006), although, unfortunately, detailed animal-bone data have not been included here. Compiling the detailed animal-bone data would make an excellent self-contained project in the future, especially if the data were linked to the structural analysis in Chapters 2–4.

There are seven sites with stratigraphically early contexts (i.e. those discussed in Chapter 3) where basic animal-bone data were available. On Cornhill bones of cattle, frogs/toads, hares, pigs, and sheep/goats were found in association with the filling of a very large ditch and quarry pits as well as other external deposition, including the backfill of the waterfront revetment. Cattle, pig, and sheep bones were also found in pits in the yard associated with the buildings south of Cornhill Road 1 at Site 51 (Figure 23). Cattle, chicken, and sheep/goat bones were found in the pits in the yard associated with the rectilinear building north of Ludgate Hill Road 1 at Site 22 (Figure 21). Carp, cattle, chicken, mouse/vole, pig, sheep/goat, thorn-back ray, and other unidentified fish bones were found in rubbish dumps alongside Ludgate Hill Road 1 at Sites 3, 22, and 21. Although no statistical analyses can be performed on these animal-bone data (because quantification was not available) it can be said that people were acquiring rays and possibly other fish from the sea, carp from the river, and occasionally hunting animals such as hares and frogs. The two yards associated with structures, one west of the Walbrook and the other on Cornhill, both produced cattle, pig, and sheep bones.

The assemblage of animal bones associated with contexts discussed in Chapter 4 from the two sites for which

data were available west of the Walbrook shows that animal bones were not disposed of in yards, as might be expected. All animal bones derive from make-up and construction-related deposits for buildings, a roadside drain, a well filled before construction of other pre-Boudican buildings, and destruction debris. Perhaps the bones that were by-products of everyday consumption were intentionally removed to be dumped in the Walbrook or further away from roads and, therefore, were not found in the study area. Bones in the destruction debris might represent food remains that were left in the buildings themselves. The assemblage demonstrates that people west of the Walbrook ate cattle, chicken, eel, sheep/goat, and pig.

East of the Walbrook the majority of the animal bones from the eastern end of Cornhill Road 1 at Site 51 derived from the make-up beneath the new road Cornhill Road 9, yard deposits associated with buildings south of Cornhill Road 1, and very little in construction deposits or destruction debris. These bones were of cattle, chicken, pig, and sheep/goat. No game animals or fish were attested at that site.

South of the Thames presents a very different pattern of animal bone deposition. Animal bone from Site 101 (Figure 59) was excavated in nearly all types of deposits, internal and external, in make-up and construction deposits, on road surfaces, and in destruction debris, demonstrating that residents there treated their food waste differently, particularly to occupants of Ludgate Hill. The bones were those of cattle, chicken, duck (including mallard), fish (including cod or hake), goose, pig, red deer, roe deer, and sheep/goat.

The range of animals available for consumption in early Londinium was wide, and would have included cattle and sheep/goats raised on surrounding farms, chicken and pigs possibly raised within the settlement, and geese, deer, ducks, and fish that would have been hunted/fished. As cattle, pig, sheep, and chicken are the most common records in the data tables, it is possible to say that pasture-raised animals were brought in from surrounding farms and that yard-raised pigs and/or chickens may have been kept on sites within the settlement.

Grain was both purchased from farms in Britain and imported from southern Europe and the eastern Mediterranean, processed before its arrival in Londinium, and then stored in various places, such as the southern proto-forum building (Figure 52; Straker 1987; Williams forthcoming), and the grain stores west of the Walbrook at Site 22 (Figure 50) and in Southwark at Sites 99 and 101 (Figure 59). Although grain storage is known in all zones, grain millers were concentrated west of the Walbrook, as demonstrated by the number of querns at Site 5 (Figure 48). Other quern fragments have been found in the destruction debris of the southern proto-forum building and in very small quantities in yard deposits on the other sites where grain stores have been located. If individuals ground their own grain, we might expect to find quern fragments on every site.¹⁹ As this is not the case and querns were highly concentrated in association with particular buildings, it is unlikely that people ground their own grain, but rather depended on professional millers, which is an important aspect of the supply system and economy.

Botanical data would make a more robust discussion possible, but have not been included in the data tables for this project, and so no comment can be made on the remains of fruits, vegetables, and nuts. Although this project database did not incorporate botanical data, both local and imported fruits and nuts are attested (e.g. figs, wild strawberries, blackberries, raspberries, apples, pears, elderberries, sloes, hazelnuts, grapes, olives, etc. as at Site 22: see Davis 2011), in addition to amphorae related to wine, fish sauce, olives and olive oil, *defructum*, and fruit preserves.

Storage

Foods and liquids were stored in a variety of closed vessel forms that could be covered with lids or stoppered, such as certain forms of ceramic flagons and jars and glass flasks and bottles. Amphorae could also be reused for

food storage or as water containers. Internal pits in the southern and northern proto-forum buildings, although unlined, could have been storage pits. What goods might have been stored in them is unknown, and perhaps food and drink are not likely possibilities as the pits were not lined and would not have protected grain from spoiling or been able to contain any liquid. Other internal storage is represented by the amphora set in the floor in a building that was also used for grain storage on the northern eyot in Southwark (Site 101 Building 2: Figure 59). These features would have provided fixed storage and could indicate rooms with specialised storage functions. Fixtures, such as shelves and cupboards, do not usually survive archaeologically in the conditions present in London. Post- and stakeholes often observed in floors inside buildings, however, may represent internal storage for any number of goods (e.g. as at Site 73 Building 1: Figure 56). Internal timber shelving was probably common for storage of dry goods, cured and preserved foods, oil, and wine: timbers associated with spices, jars, and spoons in the dry-goods shop at Site 22 Building 23 (Figure 50) probably represent shelving or a cupboard; a double-planked timber box set into the floor in the centre of a room that also had a hearth in Site 22 Building 25, next door, perhaps was a storage cabinet. A timber beam set in the floor that could have been the base for shelving in the next building to the east, Site 22 Building 8, and evidence of a wooden internal feature could be for the remains of cupboards at Site 73 north of Cornhill Road 2 (Figure 56).

Cooking and preparation

Hearths

Unfortunately, of the available animal-bone data, no bones were recorded in association with any hearth structures which would probably have represented a direct relationship with food-preparation activities. Hearths and cooking pits were used to prepare food as well as to provide heat or to produce fire for industrial activities, but it can be difficult to discern whether these hearths/fire

¹⁹ We must also concede the possibility that quern fragments on some sites may not have been recognised as artefacts and were, instead, discarded as stones (M. Millett, pers. comm.).

pits were multi-purpose or specifically designed for certain activities, such as baking ovens (perhaps in external ovens at Site 101: [Figure 59](#) and an internal oven at Site 5: [Figure 48](#)) or heating and cooking food on spits or in pots suspended over the flames. While the hearths have already been discussed in association with the structural descriptions, some of these hearths produced artefact assemblages that may hint at their functions. Some internal hearths are associated with potsherds with fabrics common to jars and bowls, but some hearths probably had other functions, such as the amphora-lined hearths in Site 22 Building 3 ([Figure 50](#)) and Site 101/104 Building 1 ([Figure 59](#)). External hearths containing metal-working waste, often amphora-lined, are likely to have been associated with industry. Yet, one of these external hearths, associated with Site 49 Building 1 north of Cornhill Road 1 ([Figure 22](#)) had several sherds of mortaria, as well as jars, bowls, and lids in and around the hearth, suggesting that it was possibly used for cooking food. The evidence is suggestive that most, if not all, internal hearths were used to cook food, although they may have had other functions as well, and some external hearths were also used for cooking. Methods of cooking in ceramic vessels – e.g. the temperature, suspension over the heat source, etc. – could be determined by rigorous analysis of use-wear, burning, and sooting (see, e.g., [Banducci 2013](#)).

Specialised objects

Mortaria were designed to be used for pounding, crushing, grinding, and/or mixing food in order to prepare it for consumption, although exactly what people in early Londinium would have been grinding is difficult to say, and the bowl-shaped objects could be used for purposes other than the one for which they were designed. The use of mortaria was common across the whole settlement, although we cannot know exactly how those mortaria were used and what foods were prepared (or served?) with them. Mortaria are often thought to be representative of a Continental tradition of food preparation, such as that described by the ancient author Apicius (e.g.

[Hartley 1973](#); [Olcese 2003](#); [Tyers 1996](#)), but the evidence suggests that Romano-British people were not necessarily using mortaria in the same ways they were used in Italy and Gaul.

In early pre-Boudican contexts ([Chapter 3](#)) on Ludgate Hill, at seven sites alongside Ludgate Hill Road 1, no mortaria sherds were found in yard deposits associated with structures, but only in the roadside rubbish dumps. On Cornhill, however, mortaria were found in yard deposits associated with buildings north and south of Cornhill Road 1 on four sites (Sites 47, 49, 50, and 51). Additionally, two more were found in occupation or destruction deposits associated with buildings at two of these sites. The association with buildings suggests that the mortaria disposed of in the yards were being used at these Cornhill sites and, perhaps, that the mortaria in the rubbish dumps along Ludgate Hill Road 1 also derive from occupants of Cornhill. The link to Gaul, therefore, is strongest in the earliest settlement on Cornhill.

In later pre-Boudican deposits ([Chapter 4](#)) mortaria were found in internal occupation debris, Boudican destruction debris, yard deposits, road layers, and in make-up and construction deposits almost everywhere there are assemblages of ceramics. This might indicate changing methods of food production among the population, with some of the earlier indigenous occupants on Ludgate Hill learning from those living east of the Walbrook and later immigrants settling on Ludgate Hill possibly deriving from Continental backgrounds. The inhabitants would not necessarily have used the objects for their designed purpose, however. A whole mortarium was found in the destruction debris of one of the round buildings at Site 13 north of Ludgate Hill Road 1 ([Figure 43](#)), indicating by its lack of fragmentation and context that it was probably stored and used in that building. The occupants of that area had clearly changed their methods of food preparation as well as building construction between the earlier and later periods, adopting some imported Roman characteristics while still maintaining their traditions. Another whole mortarium found in the Group 3 destruction debris of Site 20 Buildings 5, 6, and 8 south of Ludgate Hill Road 1 ([Figure 43](#)),

across the street from Site 13, was modified with a perforated base, and so had clearly been adapted for a different kind of use, probably as a colander or for the production of cheese.

In early pre-Boudican deposits in Southwark several mortaria sherds were found in roadside dumps alongside Southwark Road 1 on the mainland in association with a 'cheese press', which is a coarse-fabric vessel with several holes punched through the clay of the base before firing. It is thought that such vessels may have been used for draining the whey from the curds to make cheese. It is a small piece of evidence that dairy products were produced in Londinium. In a later deposit another cheese press was discarded in the large ditch with the lamb skulls on the southern eyot.

Colanders and jars with holes drilled post-firing to create a new vessel type might also have been used to produce food in a manner similar to the mortarium with the holes in the base, perhaps in the draining of whey from the curds. Two such home-made colanders of Romano-British coarse ware have been found, and one of these was in the occupation debris on the floor surface of Site 51 Building 16 (Figure 54), a timber-framed building with two internal hearths south of Cornhill Road 1, the other within a floor slab of Site 22 Building 8 (Figures 49 and 50). Other coarse ware jars with drilled holes were also created for straining or funnelling liquids, perhaps related to food production, although none of these has been found in a use context or in a yard associated with structures.

Rotary hand-querns were used for grinding grain into flour for baking breads and cakes and for making gruel. It seems that grain grinding was undertaken as a specialised craft, however, as the distribution of querns is highly biased towards certain sites and fifty-seven of the sixty-six recorded querns were found west of the Walbrook (see also page 118). The seven quern fragments from Cornhill all come from the buildings east of the proto-forum and across the street, at sites 49, 67, and 51, near to the huge grain store in the southern proto-forum building (Figure 52). The two quern fragments from Southwark also come from a site with nearby grain

stores, Site 101 (Figure 59). Probably the town had millers and grain stores, as well as bakers, and people could also purchase ground grain to make their own bread, cake, and gruel (see also page 118).

Serving and consuming

The different ways that people chose to prepare, serve, and consume food are strongly related to characteristics of their identities (Alcock 2001; Cool 2006). Although the evidence suggests that all households cooked in jars and other coarse ware bowls acquired from Britain, served and consumed food in those same vessels as well as imported bowls and dishes, and drank from British beakers and imported cups, the diverse ways different households arranged their kitchens and tables might be visible in the internal characteristics of assemblages that appear to be composed of similar items. It is possible to determine different behaviours in preparing, serving, and consuming food by examining differences in the relative frequencies of different types of vessels associated with particular buildings' occupation and destruction contexts and their associated yards.

While jars were probably primarily used for preparing and storing food and liquids, they may have also functioned as serving and communal consumption vessels representative of a particular cooking and dining tradition. One method of differentiating between different classes of site is by assessing the importance of jars in a particular assemblage by comparing the ratios of jars to dishes and bowls and to cups, which assists in differentiating between the consumption characteristics of domestic assemblages on different sites in early Londinium (Figure 69, after Evans 2001).

Conservatism and traditionalism in food preparation, serving, and consumption may be visible in jar-dominated assemblages, whereas greater diversity of forms could indicate people more inclined to adopt new forms of material culture. Bead-rimmed jars, for example, are a common pre-Roman jar form and often appear in the Highgate Wood handmade fabrics in the pre-Boudican period, perhaps indicating that this form of

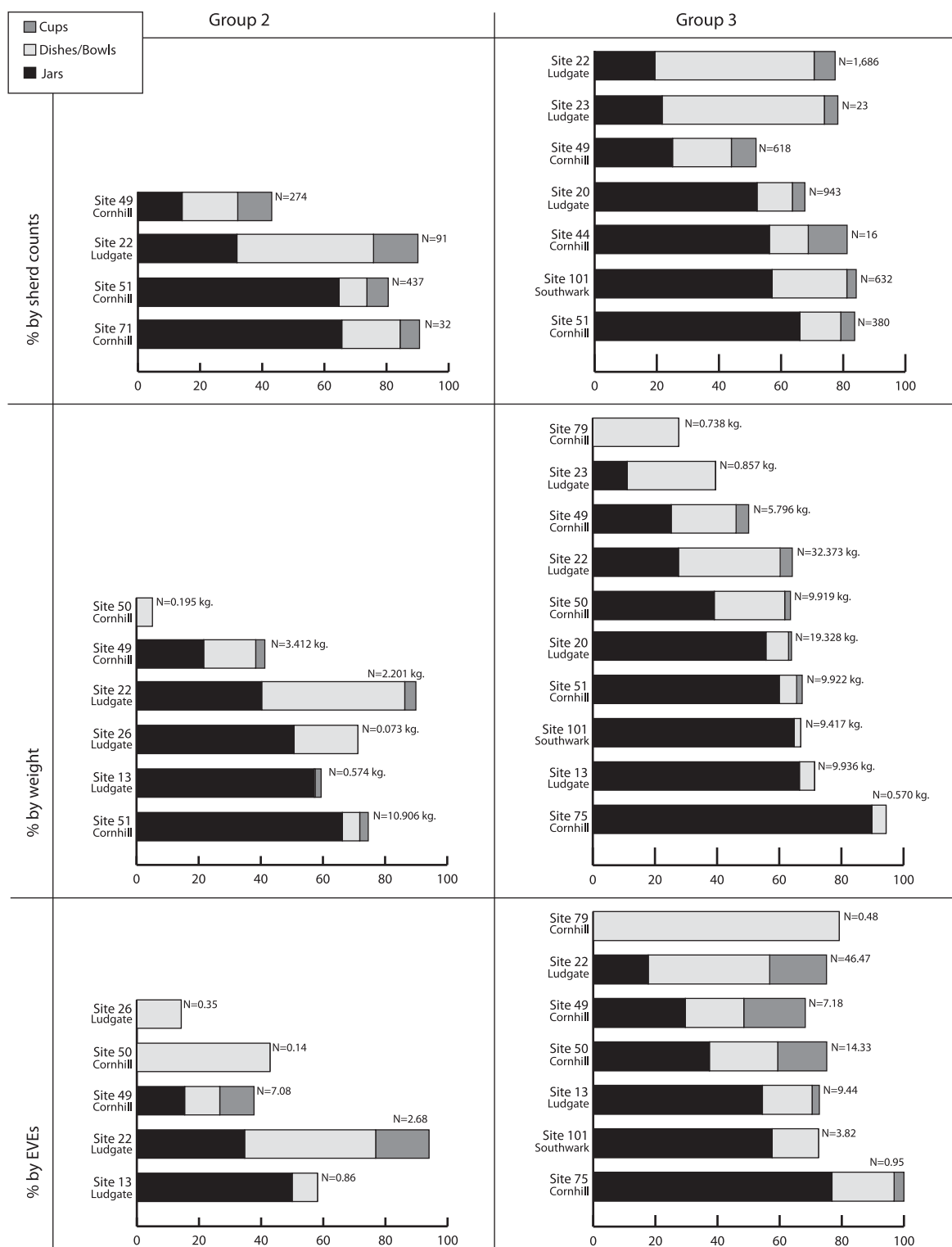


FIGURE 69 Stacked bar graphs comparing the proportions of jars, bowls/dishes, and cups in assemblages associated with yards, hearths, and occupation and destruction debris. All diagnostic quantified vessels from such contexts, except amphorae, are included. Vessel types which account for the remaining proportions, not illustrated in the graphs, are beakers, lids, mortaria, and flagons.

jar was associated with pre-Roman cooking traditions (Davies et al. 1994: 74). Plotting the distribution of bead-rimmed and handmade jars could identify traditional or conservative behaviour, and perhaps be a way to investigate poverty. Conversely, small jars with two handles, so-called ‘honey-pots’, are unknown in the pre-Roman period and may indicate non-native foodways (Davies et al. 1994: 36; discussion on pages 141–2, below).

Other ceramic forms may provide a way of thinking about these social themes as well. Beakers, for example, do not occur in Samian fabrics and so it is thought that whatever culinary tradition Samian fabrics facilitated, beakers were not part of it – they are often thought to be associated with beer consumption (Cooper 1996: 90; Meadows 1997: 26). The association of wine-leaf imagery and drinking mottoes on some tall fine-fabric beakers suggests, however, that they were also used for wine drinking and serving (Cool 2006: 147). Similarly, mould-decorated vessels in Samian fabrics are most commonly Dragendorff 29 bowls and because of their similarity to Dragendorff 11 pedestalled cups, vessels associated with drinking wine, it is possible that mould-decorated Samian bowls were used in dining where wine was also consumed (King 1995: 178, 301–7; Monteil 2005: 149). The social and spatial distribution of decorated Samian bowls may, therefore, aid a discussion of status and ethnicity communicated through wine drinking (Millett 1996: 36). Samian cups appear in two diameter-size groups in London, which may reflect two distinct uses, although it is unknown what these may be (Monteil 2005: 130); study of Samian cups, albeit from different periods, at the General Post Office site (Site 13) showed that they were the only forms besides mortaria to exhibit internal ware, suggesting that they were also used (or reused) for grinding or mixing foods (Monteil 2005: 129). Even where we cannot know the original function or associated activity of a particular type of object, we can compare internal assemblage characteristics to attempt to analyse significance. For example, the proportions of assemblages made up of cups and dishes can be compared to those of jars, distributions of indigenous forms and fabrics (such as bead-rimmed jars or handmade Highgate

Wood ware) or of Romanised forms (such as mortaria and ‘honey-pots’) can be plotted and compared to aid in discussion of identity and food preparation traditions.

To do this with the current dataset, sherd counts, weights (where available), and estimated vessel equivalents (where available) have been used to quantify the non-amphora diagnostic vessel assemblages from use contexts (i.e. yards, occupation debris, destruction debris) at all possible sites. The overall numbers from each site are not high because of this selectivity. Nonetheless, it is clear that by all measures the assemblages associated with Site 49 Building 1, the structure pre-dating the southern proto-forum building (Figure 22), and Site 22 Building 1, the post-built structure north of Ludgate Hill Road 1 (Figure 21), are dominated by dishes/bowls and cups with a much smaller proportion of jars than at Site 51, the structures associated with the industrial pit, lead-casting, and military objects (Figure 23), or Site 13 where the early round buildings were located (Figure 18).

There is more material related to Group 3 structures, where the potter’s shop at Site 22 Building 23 and the possible tavern Site 22 Building 11 are immediately apparent as huge dish/bowl and cup-dominated assemblages (Figure 50). The southern proto-forum building (Site 49) and the masonry-founded aisled hall (Figure 52), both associated with lamps, glass, and writing implements, also have assemblages with low proportions of jars. The assemblage from rectilinear buildings with round buildings in the yard at Site 13 (Figure 43) is heavily jar-dominated, as the Group 2 assemblage from that site was. The assemblage from buildings on the northern eyot at Site 101 (Figure 59) has a similar pattern, as do the buildings at the eastern end of Cornhill Road 1 at Site 51 (Figure 54). The link between occupation of round buildings and jar-dominated assemblages and occupation in the largest, possibly public, structures and dish/bowl and cup-dominated assemblages seems to confirm the hypothesis. More diversified assemblages are characteristic of urban sites in general (Evans 2001: 26–7, figs. 4 and 5), and at this specific period the more diverse assemblages (i.e. not the jar-dominated groups) probably reflect a Continental style of preparing, serving,

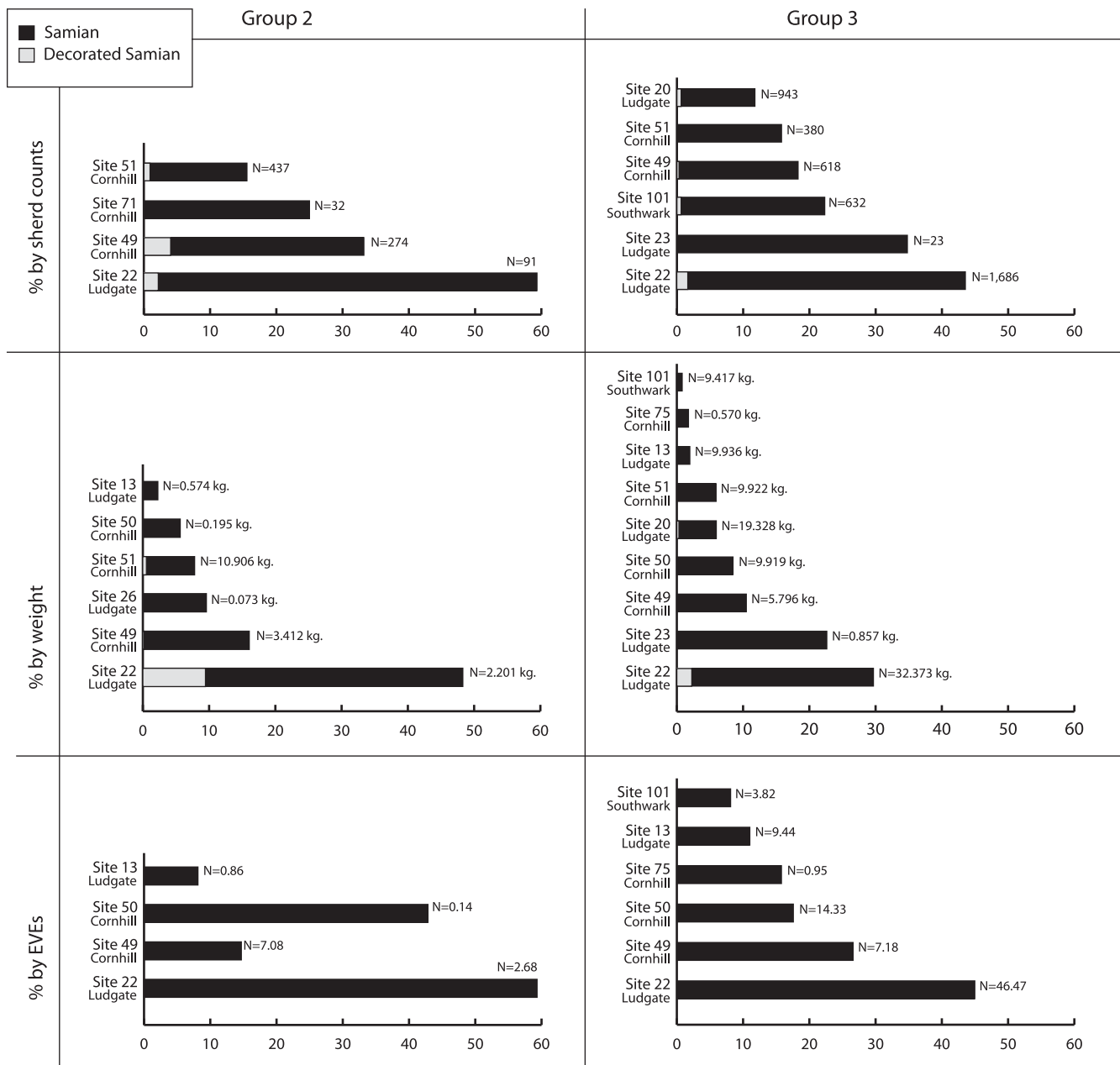


FIGURE 70 Stacked bar graphs comparing the proportions of Samian in use assemblages associated with yards, hearths, and occupation and destruction debris. All diagnostic quantified vessels from such contexts, except amphorae, are included.

and consuming food, less reliant on individual vessel types. The use of glass vessels and lamps (for dining?) supports this interpretation.

The proportions that Samian vessels comprise of these use assemblages also demonstrate an aspect of diversity in food preparation, serving, and consumption (Figure 70).

The assemblages where Samian makes up a smaller proportion of these assemblages are the jar-dominated assemblages, and the locations where glass vessels have been found are those same sites more associated with a larger proportion of Samian vessels. These correspondences are supporting evidence that heavy reliance on jars

may be linked to a lack of diversity in vessels used and possibly to conservatism and low economic status reflected in the culinary traditions.

The jar-dominated assemblages may indicate a type of cooking and serving that was based on bringing the jar to the table and, not being so reliant on ceramic dishes, bowls, and cups, perhaps using wooden dishes and bowls or bread trenchers and drinking out of wooden cups. Clearly, however, dishes, bowls, and cups, both ceramic and glass, were used to some degree by the people who were more reliant on jars. For those people, such specialised vessels may have had more significance as status markers. In households that probably set their tables with several dishes, bowls, and cups these objects communicate the tradition of serving and dining separate from preparing and cooking. People cooking and eating in different ways seem to have lived both east and west of the Walbrook, and the impression is one of a population with diverse culinary traditions mixed in these two zones. South of the Thames the tradition more reliant on jars dominates the one site with ample data, and may suggest that the population there was not part of the group for whom separate place settings and specialised ceramic and glass vessels were as important.

There is one type of jar of a 'Belgic' form that has been specifically related to pre-Roman traditions: the bead-rimmed jars. Contrastingly, a two-handled type unknown in Britain until the post-invasion period that could represent 'Roman' or imported culinary traditions and foodways are the so-called 'honey-pots' (Davies et al. 1994). Handmade pottery (Highgate Wood B ware) is also thought to be indicative of pre-invasion culinary practices and, as all imported pottery was wheel-made and as the Highgate Wood pottery began to produce wheel-made forms in the later Neronian/Flavian period, it is thought likely that the fabric is indicative of a more traditional and conservative method of cooking, serving, and consumption (Davies et al. 1994). Looking for the presence and absence of these forms allows for all of the ceramic data, including spot dating, to be used. Where key cultural indicators are of interest, as opposed to internal proportions and the relationships between different practices, it

may be possible to rely on presence-and-absence data and thereby make some use of spot-dating information.

Bead-rimmed jars and vessels in Highgate Wood B ware, however, appear in nearly every large use assemblage: on Ludgate Hill the two are found all along Ludgate Hill Road 1 in association with the round buildings in both Groups 2 and 3 as well as in buildings where 'Romanised' assemblages have been found with writing implements, glass vessels, and lamps at the eastern end of Ludgate Hill Road 1. On Cornhill they are found in association with the two largest buildings east of the crossroads as well as with the buildings associated with metal-working industry that preceded the masonry-founded aisled hall and also at the eastern end of Cornhill Road 1 in both Groups 2 and 3 and in association with buildings closer to Cornhill Road 4 and along Cornhill Road 2 beyond the earlier burial area. They are also common along Southwark Road 1 in yards, interior deposits, and destruction debris. There is no discernible pattern of deposition of these objects in use assemblages and they appear to have been commonly used by all people. Probably both immigrants and indigenous groups used these bead-rimmed jars and handmade vessels for food preparation, serving, and consumption because they were locally produced and readily available. Whether the use of such objects changed the method of food preparation or consumption among the immigrant groups is unlikely; they could have been adapted to new uses as the fabric and form do not dictate particular types of activities. Handmade fabrics and bead-rimmed jars, therefore, do not appear to have been indicators of status or ethnicity, nor do they indicate a difference in the food-preparation techniques of different groups of people in the pre-Boudican period.

The so-called honey-pots, however, may have been specialised objects used for a particular purpose, as they have only been found in the use assemblages of five buildings/yards: the large masonry-founded aisled hall, the southern proto-forum building (Figure 52), the Group 2 working yard associated with military objects at Site 51 south of Cornhill Road 1 (Figure 23), the newly oriented Group 3 Site 51 Building 24 phase 2 north of

Cornhill Road 1 (Figure 54), and the fire-destruction debris of the buildings furthest back from the road associated with Site 22 Buildings 9 and 10 at the eastern end of Ludgate Hill Road 1 (Figure 50). The honey-pots, therefore, have been found in association with military artefacts (Site 51 Buildings 15/44 and the southern proto-forum building), writing equipment (Site 51 Buildings 15/44, the southern proto-forum building, Site 22 Buildings 9/10, the aisled hall), lamps (the aisled hall), and glass serving and consumption vessels (the southern proto-forum building, Site 22 Buildings 9/10, the aisled hall), which are all assemblages that are not jar-dominated. They are not strongly associated with craftsmen or other specialised occupations or with the presence of lamps. The associations could be supporting evidence that honey-pots formed part of Romanised assemblages and functioned within an imported culinary tradition.

As there is no evidence for glass manufacture in Londinium before about AD 70 (at Site 71: see Brigham and Watson forthcoming), all glass vessels were probably imported in the pre-Boudican period. In that sense, they were no more status indicators than Samian ware was (see Monteil 2005), but are likely to indicate a specific kind of dining tradition. Colourless glass vessels were, however, particularly prized and were luxury objects associated with high-status dining (Shepherd 2008). Glass data was available in registered finds and glass tables from forty-eight sites, thirty-eight of which contained glass objects in pre-Boudican contexts. Glass flasks, jugs, jars, and bottles are also known, but may have been used for storage, in addition to serving.

The only glass vessel (a pillar-moulded bowl) found in an occupation or yard context associated with early occupation (Chapter 3) west of the Walbrook was in the interior occupation debris in the round building at Site 5 (Figure 21), which is evidence to link the indigenous population to the use of imported glass in their dining. The Cornhill pattern differs dramatically: all the yards that produced ceramic vessels associated with serving and consumption in these contexts on Cornhill also produced glass serving and consumption vessels (pillar-moulded bowls, marbled bowls, flagons, cups, beakers, and dishes).

All three examples of free-blown colourless glass vessels were found in the yard associated with buildings north of Cornhill Road 1 at Site 49 before the construction of the southern proto-forum building (Figure 22). Marbled glass fragments of cast bowls were found at the same site along with a significant quantity of blue glass vessels, including a pillar-moulded bowl and jugs. Natural blue, green, and blue-green glass derived from the same site's buildings and yards. This single glass assemblage comprises a third of all Group 2 glass vessels from Cornhill and indicates the likelihood of luxury dining in the area, which is east of Cornhill Road 7 and the proto-forum and has already been mentioned in association with possible military activity in the form of a lobate cuirass hinge.

Of the thirty-five records of glass serving and consumption vessel fragments from Group 3 occupation/destruction and yard deposits, more than half (nineteen) are associated with only two buildings: the southern proto-forum building and the masonry-founded aisled hall (Figure 52). Fragments of facet-cut colourless beakers, natural green-blue pillar-moulded and free-blown bowls were found in association with the southern proto-forum building. Fragments of natural green and natural blue cups, a natural green-blue cup and beaker, and pillar-moulded bowls, as well as green, blue, and millefiori bowls were found in association with the aisled hall across the street. Two of the three colourless glass vessels were found in association with the southern proto-forum building. Colourless glass marks the owners of these structures as of higher economic status, and the concentration of glass in these areas is evidence of diverse table arrangements and, possibly, dining based on individual place settings.

The occupants of Site 101 Buildings 3 (the blacksmith's workshop) and 4 east of Southwark Road 1 on the northern eyot (Figure 59) used natural green-blue and amber pillar-moulded and other glass bowls. Evidence of the use of an interesting and rare dark-green glass table stand was found in the make-up for Southwark Road 5. West of the Walbrook, the possible miller's household at Site 5 Buildings 2/3 (Figure 48) used a colourless beaker and a

natural green pillar-moulded bowl and further east, also south of Ludgate Hill Road 1, fragments of a natural green glass cup were found in the destruction debris of Site 22 Building 16 (Figure 50). North of Ludgate Hill Road 1 at the same site, natural green-blue pillar-moulded glass bowls were found in association with three buildings set back from the road, Site 22 Buildings 9 and 10, associated with a large outdoor hearth and network of drains, and Site 22 Building 11, the building with the timber-lined latrine drain (Figure 50). Further west along Ludgate Hill Road 1, at Site 13 (Figure 43), fragments of a natural blue beaker and pillar-moulded bowl were found in association with rectilinear buildings and round buildings. Fragments of glass bowls were also found at the far eastern end of the site, north of Cornhill Road 2 at Site 44 (Figure 56) and one fragment associated with Site 51 Building 14 south of Cornhill Road 1, which had painted plaster walls and a timber-lined drain (Figure 54).

The association in use contexts of glass with lamps (at Site 5 Buildings 2/3, the aisled hall, Site 101 Buildings 7/8), writing equipment (at Site 5 Buildings 2/3, Site 22 Buildings 9/10, Site 22 Building 11, Site 49 Building 1, Site 49 Building 2, and the aisled hall), and military objects (at Site 22 Building 11, Site 49 Buildings 1 and 2, Site 101 Building 7) could be supporting evidence that those who were engaged in the activities enabled by lamps, some of whom were merchants, craftsmen, and soldiers or veterans, were also educated and literate individuals, often wealthy, who set their tables with diverse serving and consumption vessels, subscribing to a suite of symbolic behaviours that would have communicated their wealth, status, and group identities.

SYNTHESISING THE EVIDENCE

Character of the earliest settlement

The lack of those activities that represent Continental-style dining and lighting, the use of coins, and writing in conjunction with the presence of indigenous British vernacular architecture in Group 2 contexts on Ludgate Hill suggests that along Ludgate Hill Road 1 the population

was more likely to be, at least partly, British. There is little evidence for occupation along Southwark Road 1 in Group 2, but the Iron Age-style crucibles found on the mainland might suggest a small indigenous population there as well.

The assemblages from the Group 2 waste-disposal deposits along Ludgate Hill Road 1 do, however, strongly resemble assemblages from yards and occupation areas on Cornhill. Particular activities for which there is little to no evidence in association with structures along Ludgate Hill Road 1, but strong evidence on Cornhill and the waterfront, are: writing with ink on wood and parchment or with styli on wax tablets (probably most strongly associated with record-keeping and long-distance communication); preparing and storing food using mortaria and certain other Continental-style jars (such as two-handled honey-pots and necked jars); setting the table with glass vessels; lighting interiors with oil lamps; and evidence of the presence of soldiers or veterans.

The people living in buildings along Cornhill Road 2 may also have had a different relationship to the central settlement. Little has been said here of these structures because they have no finds data associated with their yard deposits. Their small internal and hearth assemblages are similar to those west of the Walbrook and also have little to no evidence for those characteristics of sites further west along Cornhill Road 1, such as writing, mortaria use, glass vessels, oil lamps, or the presence of soldiers or veterans. Because the evidence is so sparse, it may not be valid to draw this comparison. They may have chosen to live there simply in order to be near to the stream tributary that would have provided them with fresh water. And yet, people who chose to live so far from the waterfront and from the proto-forum beyond a burial area and possible settlement boundary are likely to have had a different place in society.

Occupation up to AD 61

The people who flocked to Londinium in the decade before the Boudican Revolt formed a diverse population. West of the Walbrook people no longer lived in houses

set back from the roads, separated from them by rubbish dumps. They were much more interested in taking advantage of the public space of the roads and passing trade. Soldiers and/or veterans were active in Site 5 Building 4 and Site 22 Building 11 (which might have been a tavern or eating-house: see Hill and Rowsome 2011a), north of Ludgate Hill Road 1. A miller and baker lived south of Ludgate Hill Road 1 Site 5 Buildings 2/3 and a carpenter north of Ludgate Hill Road 1 Site 22 Buildings 7/8. Next door to the carpenter a merchant ran a dry-goods shop selling spices and Samian dishes and bowls in Site 22 Building 23. Metal-workers casting lead and copper objects were also active in that area. The literate individuals were clustered at the eastern end of Ludgate Hill Road 1, and left behind ample evidence for both writing in ink on wooden leaves or parchment and with a stylus in wax on wooden tablets. The people who continued to use round buildings as secondary structures also constructed rectilinear buildings facing onto the road. These families showed how they were using both traditional cooking methods and foreign, imported dining styles. They adapted new objects to suit their own uses and exemplified the diversity and hybridity of the consumption patterns and the society on Ludgate Hill, which is also apparent in the styles of buildings (e.g. Site 2 Building 1).

On Cornhill metal-workers undertaking lead- and copper-casting were based on the eastern half of the main street. The area where there was such significant evidence of military activity in Group 2 was overlain by a road and new buildings, some of which were associated with copper-working. Near a grain store in the eastern end of the largest building in the settlement, the southern proto-forum building, metal-casting was also occurring, perhaps in association with soldiers or veterans. Record-keeping in the form of writing with ink is also associated with this largest building. Across the street at Site 50, three attached buildings shared a yard area with a huge industrial pit perhaps for bronze-working, as in the earlier incarnation of these buildings and their yard. The land these buildings stood on was soon claimed for a single, large masonry-founded building, the aisled hall,

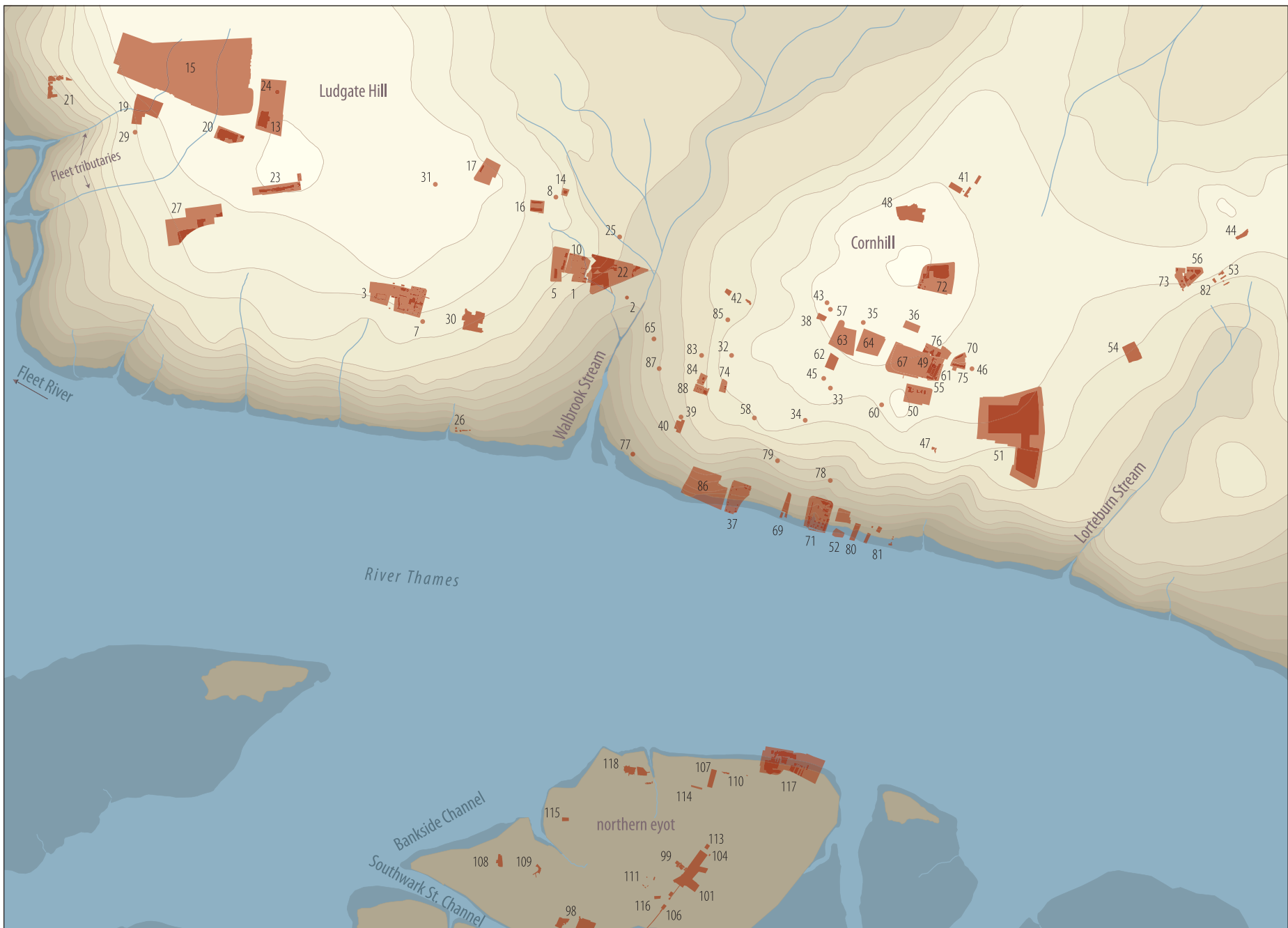
with internal piers attached to a smaller structure with a tile-lined latrine. Evidence for high-status dining by lamplight using glass vessels as well as writing on wax tablets is associated with this enigmatic, probably public, building. Diversity in methods of preparing, serving, and consuming food is evident across Cornhill.

There is far less social stratification present in the community in Southwark. At the southernmost part of the southern eyot a butcher was working, producing cuts of lamb. The metal-workers further south on the mainland at Site 100 from Group 2 may have continued their work, but new buildings constructed over the roadside rubbish dumps seem to have displaced their deposition area. A merchant in grain and a baker were working near to each other on the northern eyot at Sites 99 and 101, and a small cow farm, possibly a dairy or cattle yard, was situated on the southern part of that eyot at Site 98. A blacksmith in Site 101 Building 3 worked next door to the grain merchant, but accidentally burnt his workshop down before Boudica arrived. Their communities could have existed somewhat separately with goods brought into the natural inlet on the southern eyot, improved with harbour structures in the later AD 60s, or to the north-western shore of the northern eyot, which was revetted with a waterfront structure around the same time. Some people in this area were literate and wrote with ink, while others used a type of literacy by scratching their initials onto pots.

The mode of economy in the earliest settlement seems to have been based on specialised workshops and skilled craftsmen living alongside general merchants trading in a variety of goods. The town was not a consumer-only city, and the products of early Londinium, such as SLOW pottery, forged iron objects, and large and small cast copper-alloy objects, could have been exported to other settlements. Clearly agricultural products, such as clean grain, and raw materials, such as copper, were brought into the town, but the evidence of crafts and specialised occupations, such as butchery, milling, and baking, indicates that the occupants also contributed services and secondary products to the economy of the town.



FIGURE 30 a: Site 101, photograph of one of the buildings burnt in the Boudican fire under excavation (see [Figure 59](#) for the plan of this site) (copyright: MOLA); b: Site 49 Building 2 (the southern proto-forum building, eastern end), photograph of the collapsed mud-brick superstructure from the north wall, facing north (see [Figure 52](#) for the plan) (copyright: MOLA).



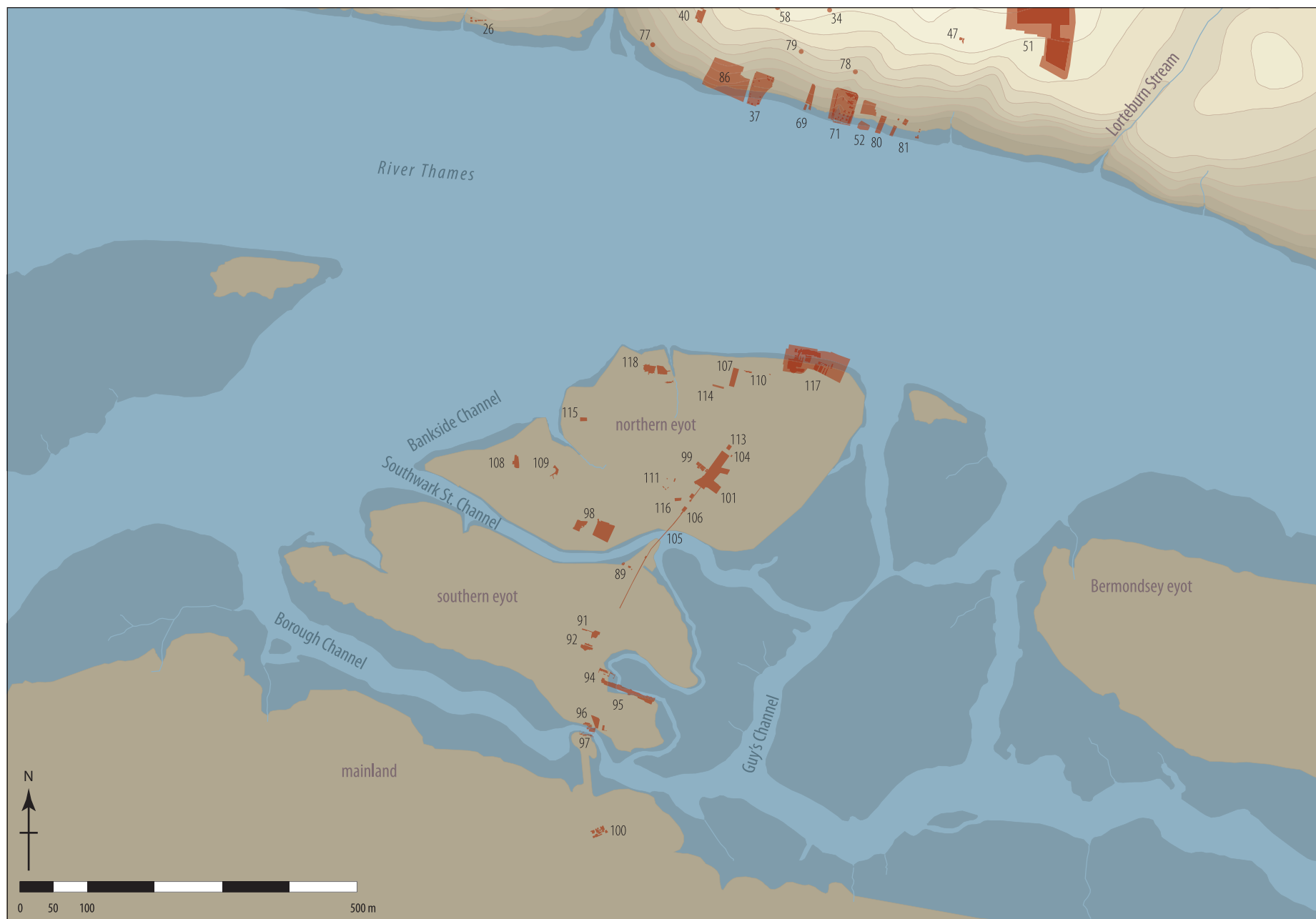


FIGURE 31 The sites with Group 3 (Chapter 4) features. Scale 1:8,000.

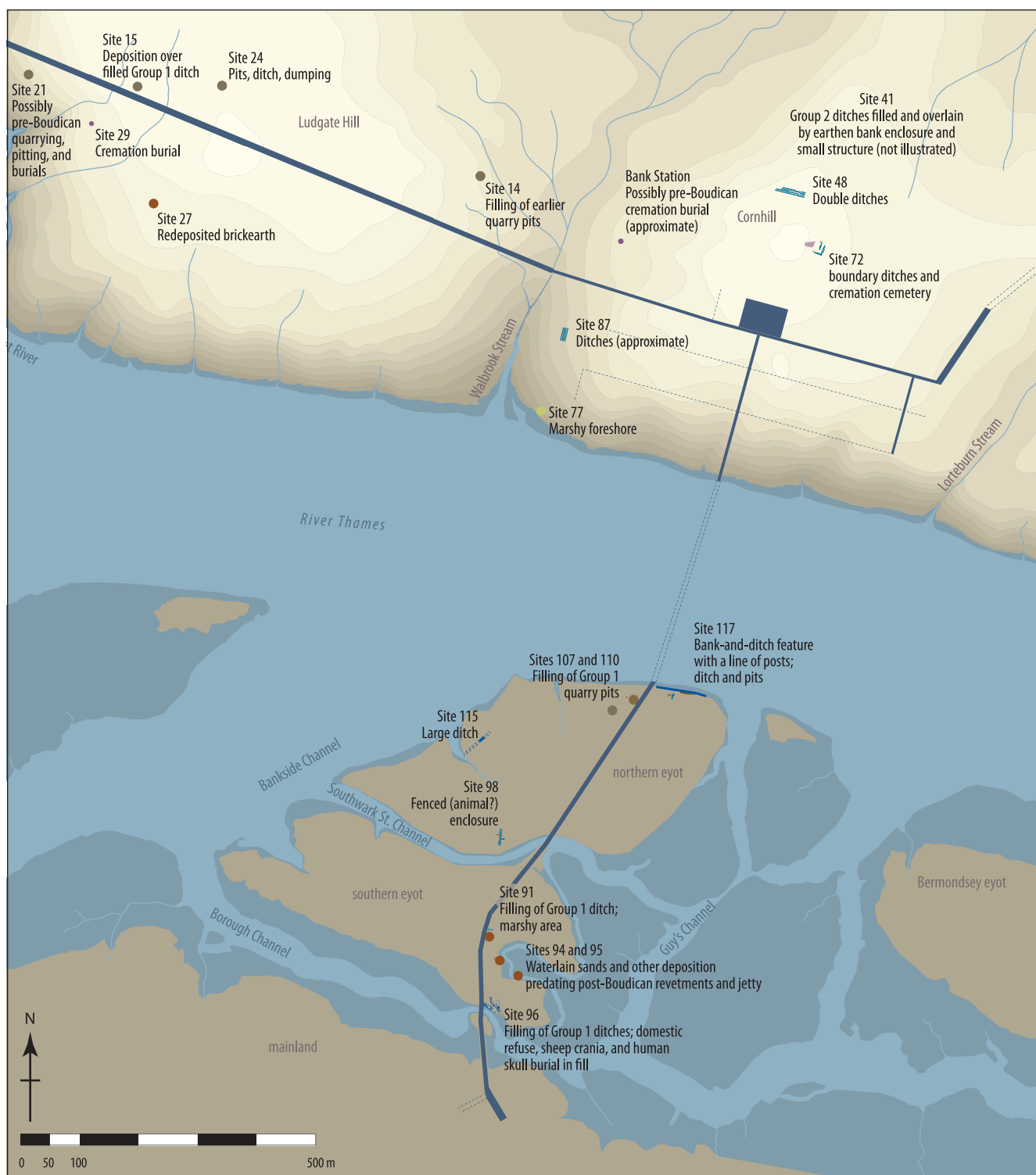


FIGURE 32 Open areas c. AD 60/61. Scale 1 : 10,000.

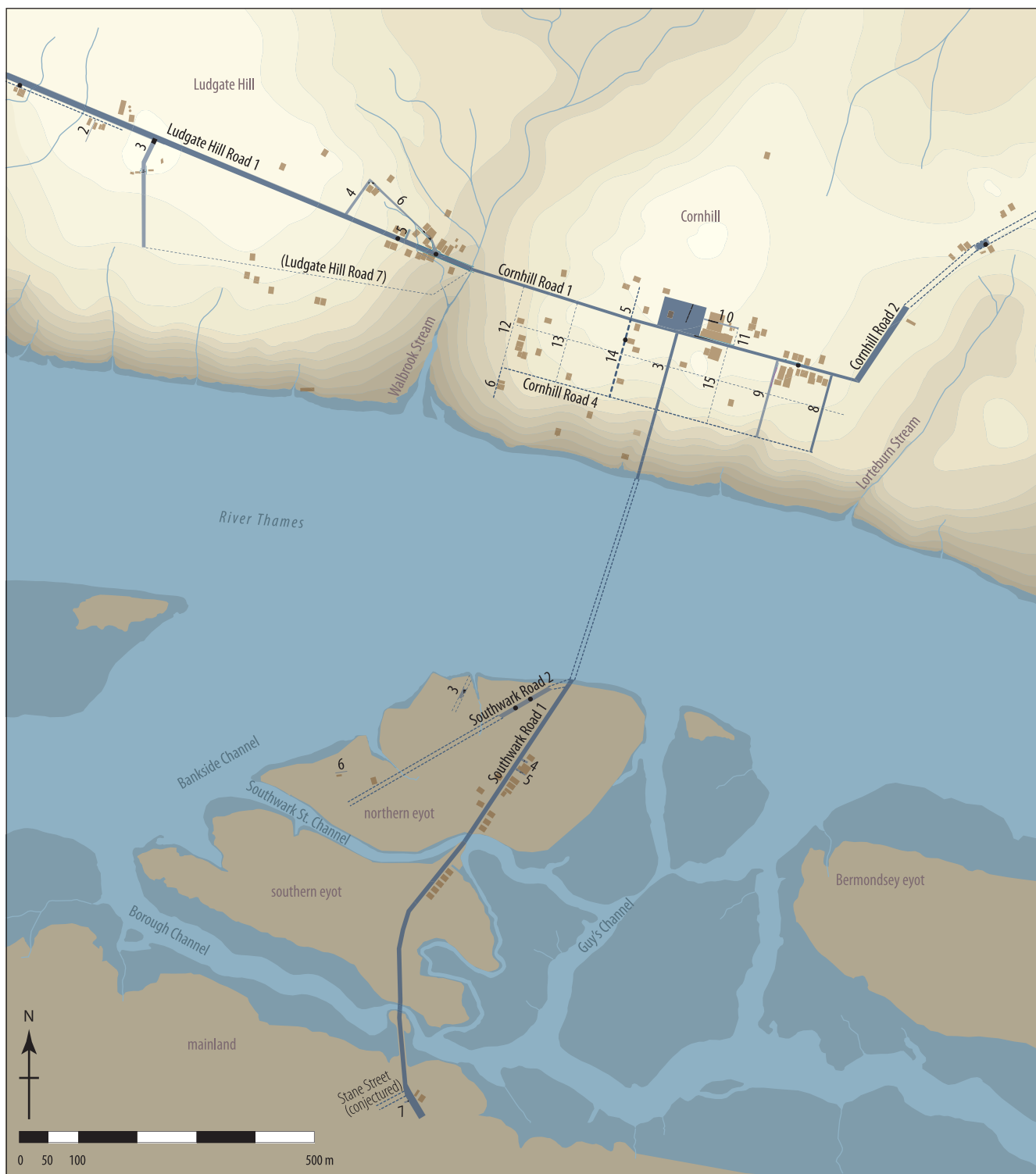


FIGURE 33 Roads, excavated and conjectured, c. AD 60/61. Scale 1 : 10,000.



FIGURE 34 Sites 37, 52, 71, 80, 81, and 86, Group 3, along Cornhill waterfront (cf. Figures 27 and 28). Scale 1 : 1,250.

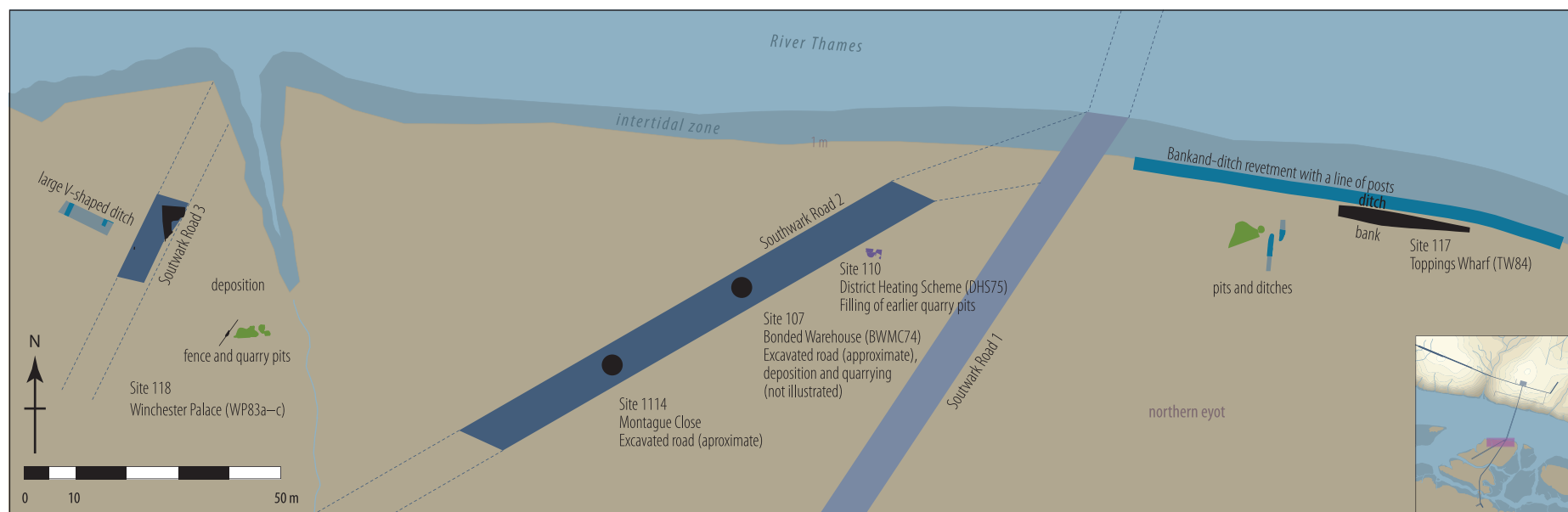


FIGURE 35 Sites 107, 110, 114, 117, and 118, Group 3, along Southwark waterfront, northern eyot. Scale 1 : 1,250.

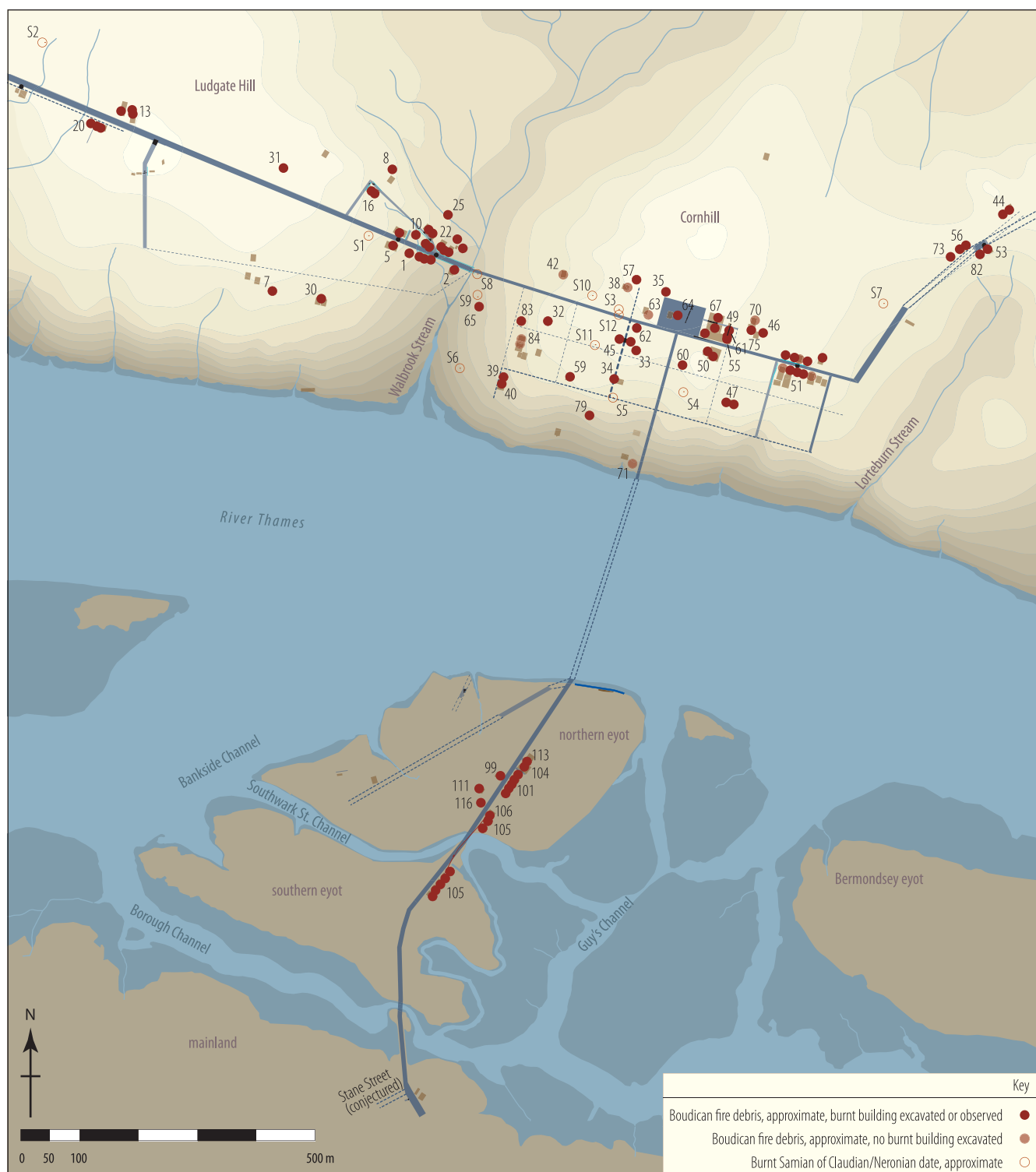


FIGURE 36 Evidence of the Boudican fire and locations of burnt Samian. Scale 1 : 10,000.





FIGURE 37 The archaeological features of Londinium c. AD 60/61. Scale 1:8,000.

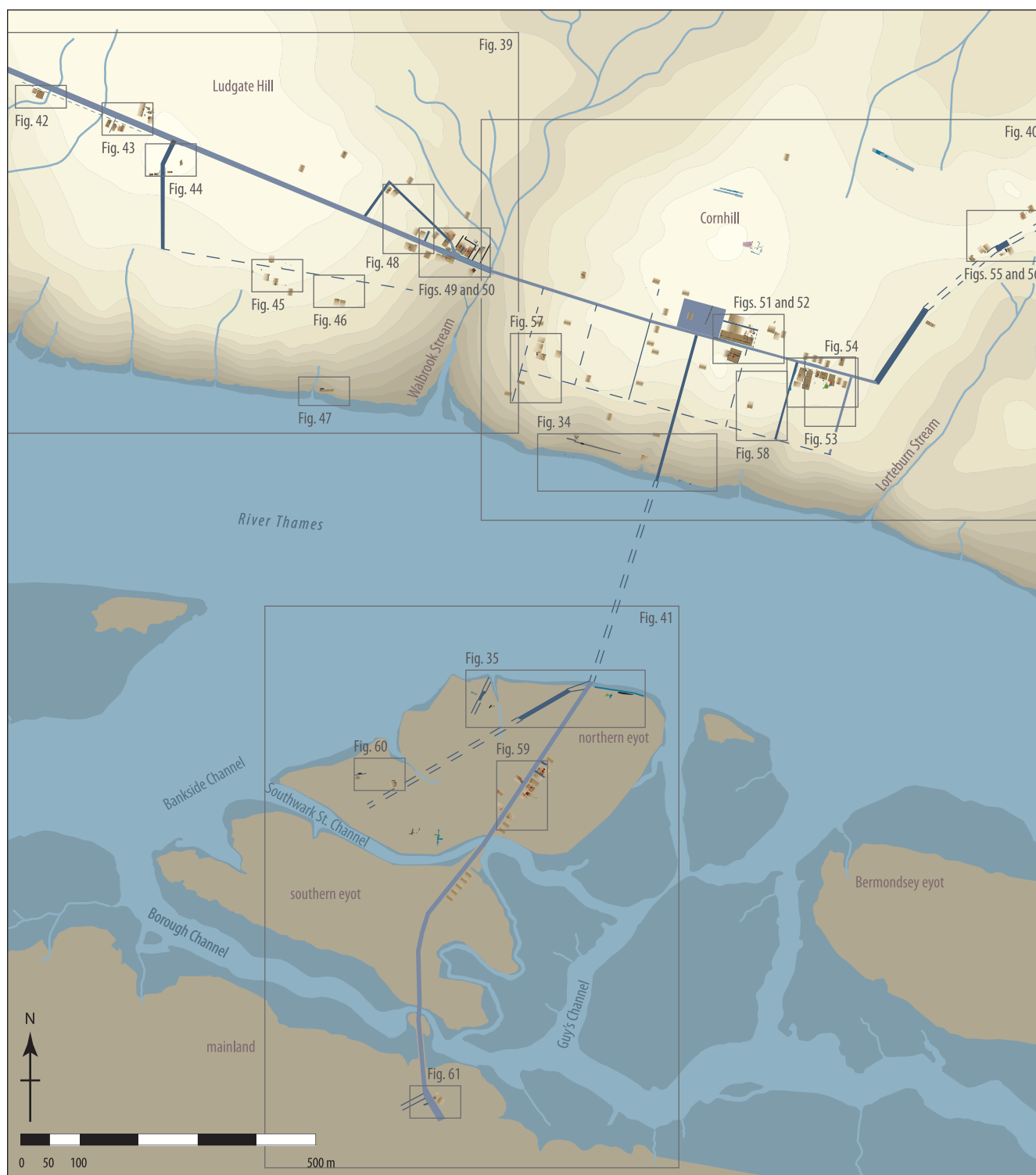


FIGURE 38 Londinium c. AD 60/61 showing the locations of the following detail figures. Scale 1 : 10,000.

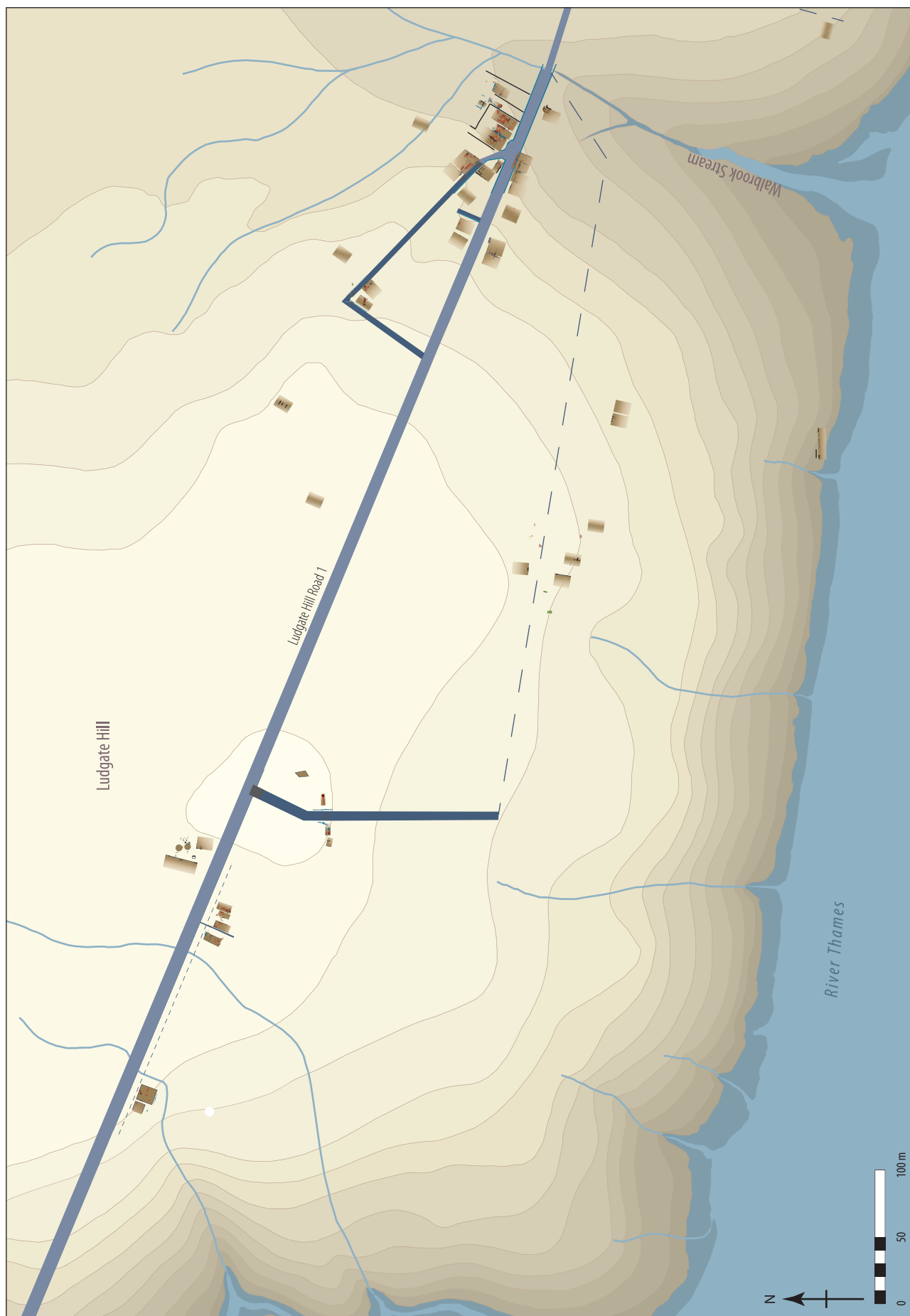


FIGURE 39 Ludgate Hill c. AD 60/61. Scale 1:4,000.



FIGURE 40 Cornhill c. AD 60/61. Scale 1:4,000.



FIGURE 41 South of the Thames c. AD 60/61. Scale 1:4,000.

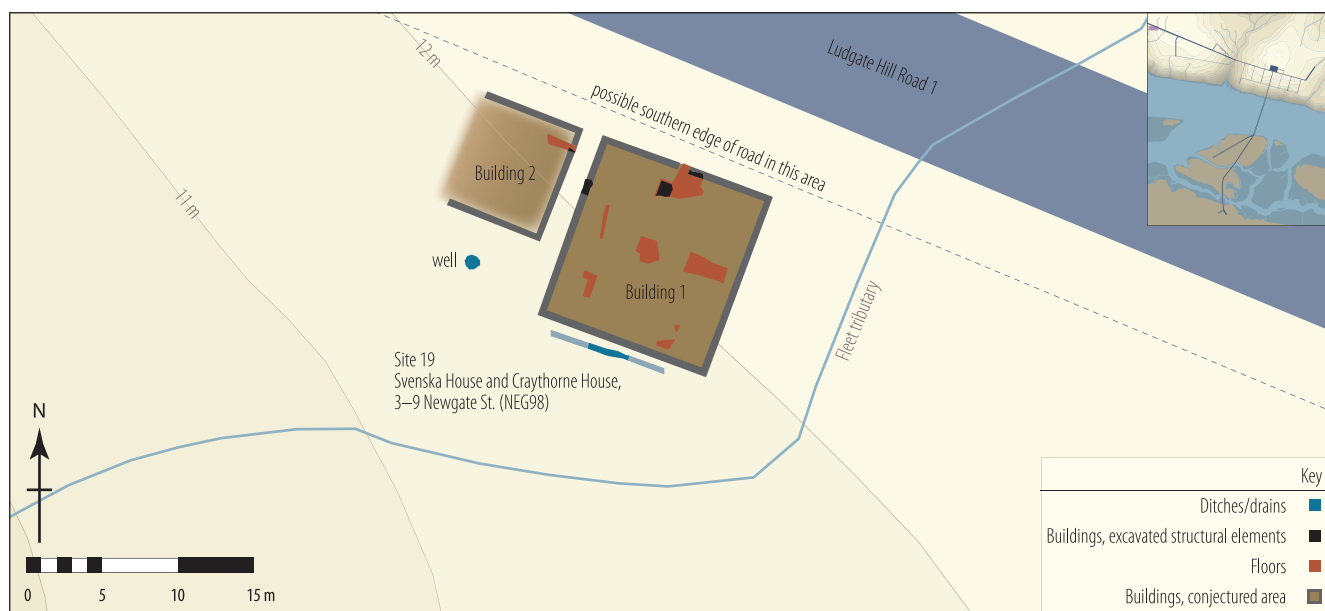


FIGURE 42 Site 19, Group 3, at the western end of Ludgate Hill Road 1. Scale 1 : 500.

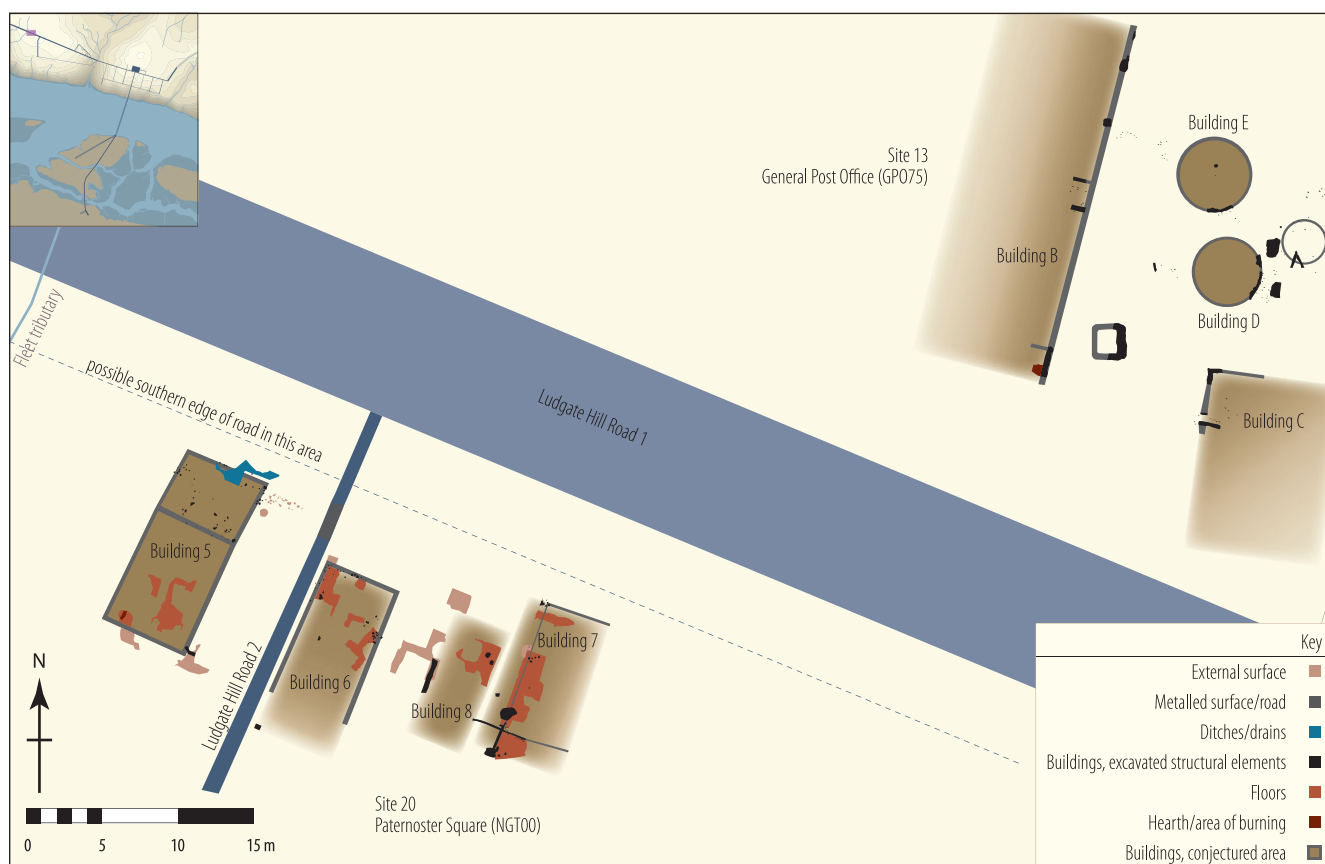


FIGURE 43 Sites 13 and 20, Group 3, at the western end of Ludgate Hill Road 1 near Road 2 (cf. Figure 18). Scale 1 : 500.



FIGURE 44 Sites 20 and 23, Group 3, at the western end of Ludgate Hill Road 1 near Road 3 (cf. Figure 19). Scale 1 : 500.



FIGURE 45 Sites 3 and 7, Group 3, along the conjectured Ludgate Hill Road 7. Scale 1 : 500.



FIGURE 46 Site 30, Group 3, south of the conjectured Ludgate Hill Road 7. Scale 1 : 500.

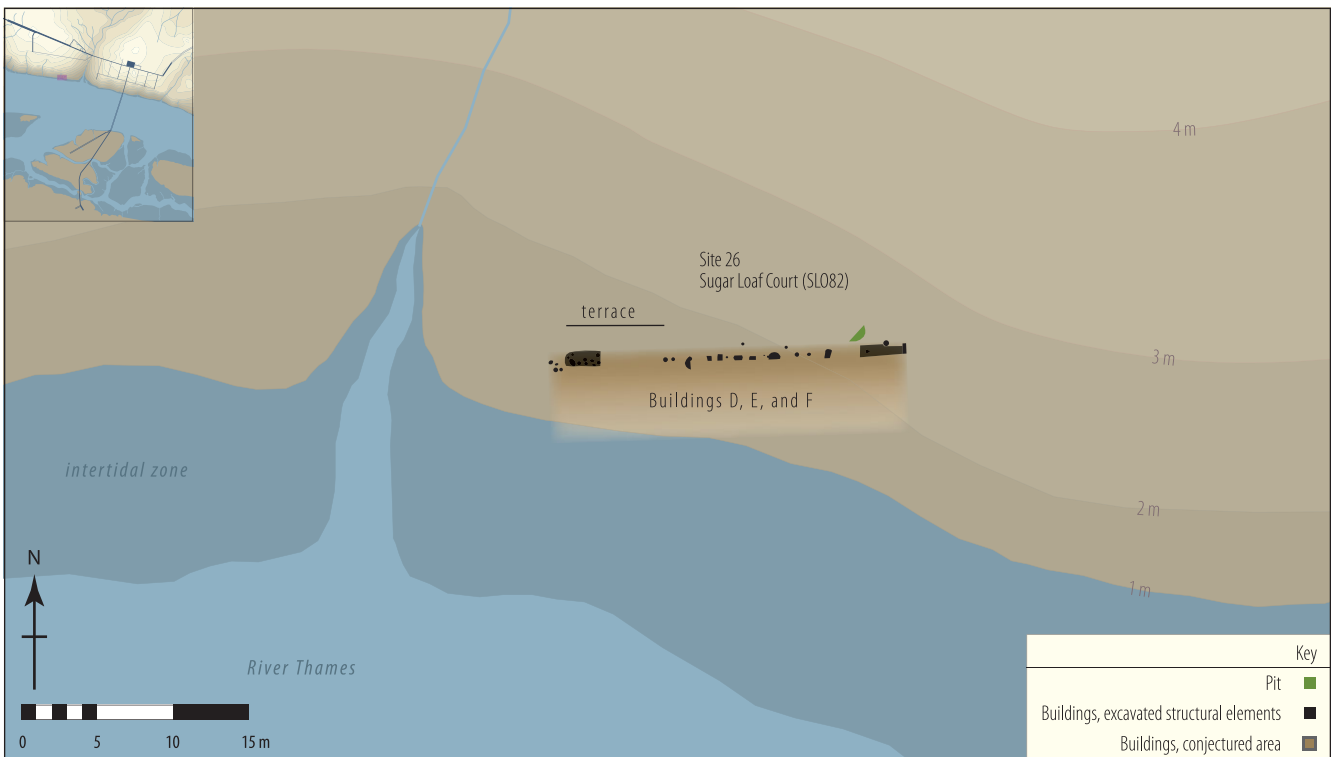


FIGURE 47 Site 26, Group 3, on the waterfront west of the Walbrook (cf. Figure 20). Scale 1 : 500.



FIGURE 48 Sites 1, 5, 8, 10, and 16, Group 3, along Ludgate Hill Roads 1, 4, 5, and 6, c. AD 60/61 (cf. Figure 21). Scale 1 : 500.



FIGURE 49 Site 22, Groups 3.1–3.4, at the eastern end of Ludgate Hill Road 1 (with Group 2 features [transparent]; cf. Figures 21 and 50). Scale 1 : 500.

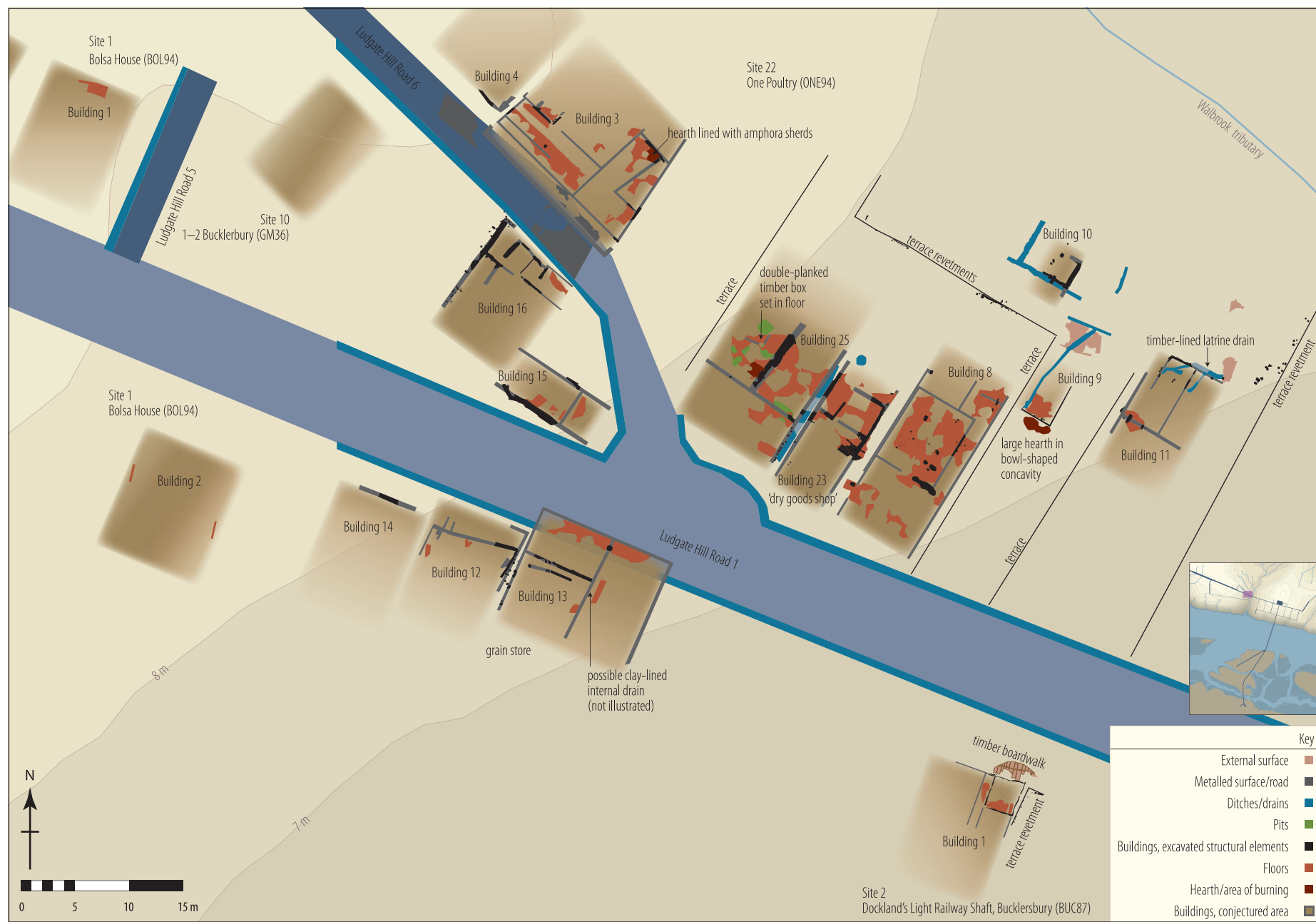




FIGURE 51 Sites 49, 50, and 67, Groups 3.1–3.4, along Cornhill Road 1 east of the main crossroads (with Group 2 features [transparent]; cf. Figures 22 and 52). Scale 1 : 500.

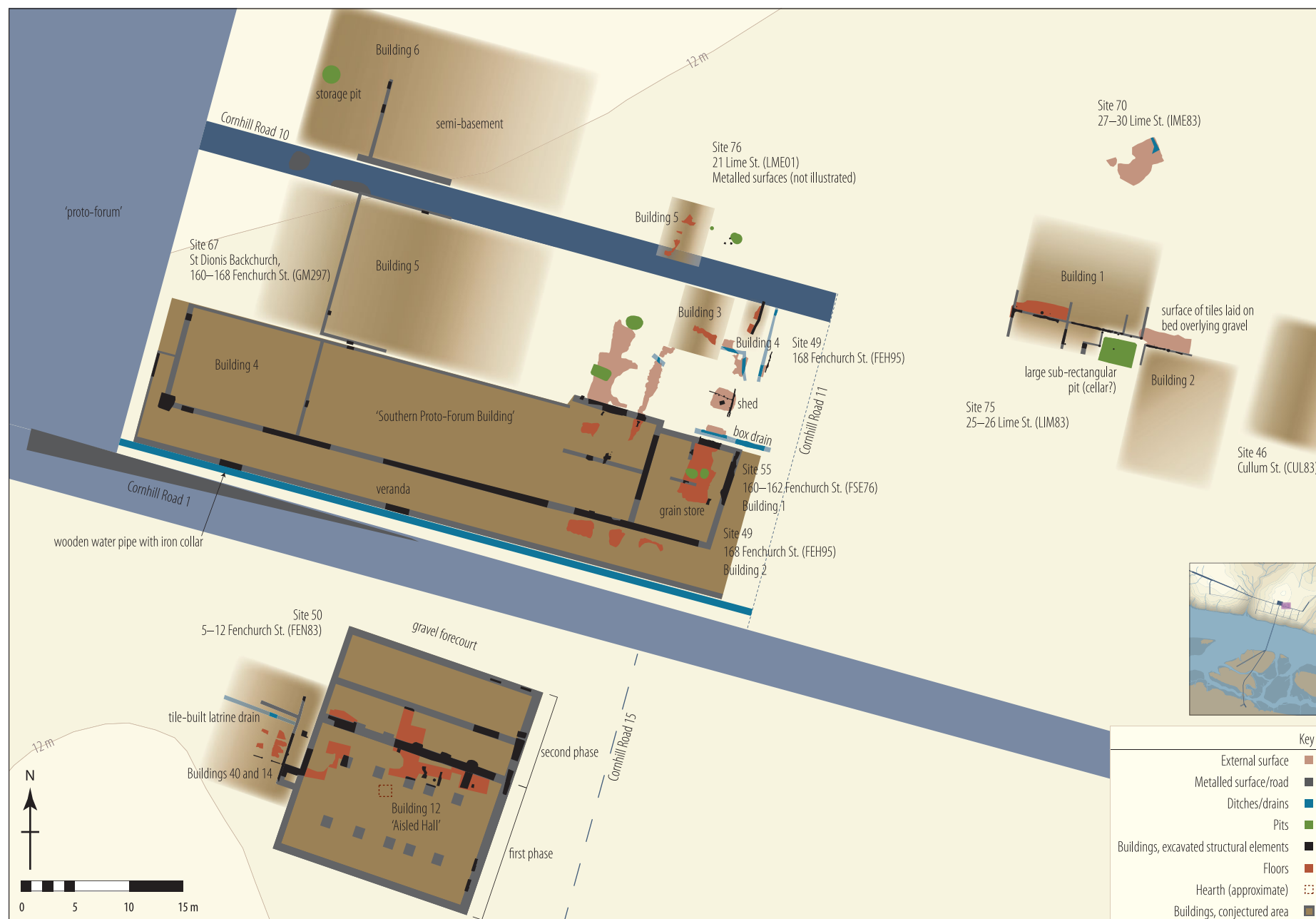


FIGURE 52 Sites 46, 49, 50, 55, 67, 70, 75, and 76, Group 3, along Cornhill Road 1 east of the main crossroads, c. AD 60/61 (cf. Figures 22 and 51). Scale 1 : 500.



FIGURE 53 Site 51, Groups 3.1–3.4, along Cornhill Roads 1 and 8 (with Group 2 features [transparent]; cf. Figures 23 and 54). Scale 1 : 500.



FIGURE 54 Site 51, Group 3, along Cornhill Roads 1, 8, and 9, c. AD 60/61 (cf. Figures 23 and 53). Scale 1 : 500.



FIGURE 55 Site 55, Groups 3.1–3.4, along Cornhill Road 2 (with Group 2 features [transparent]; cf. Figures 24 and 56). Scale 1 : 500.

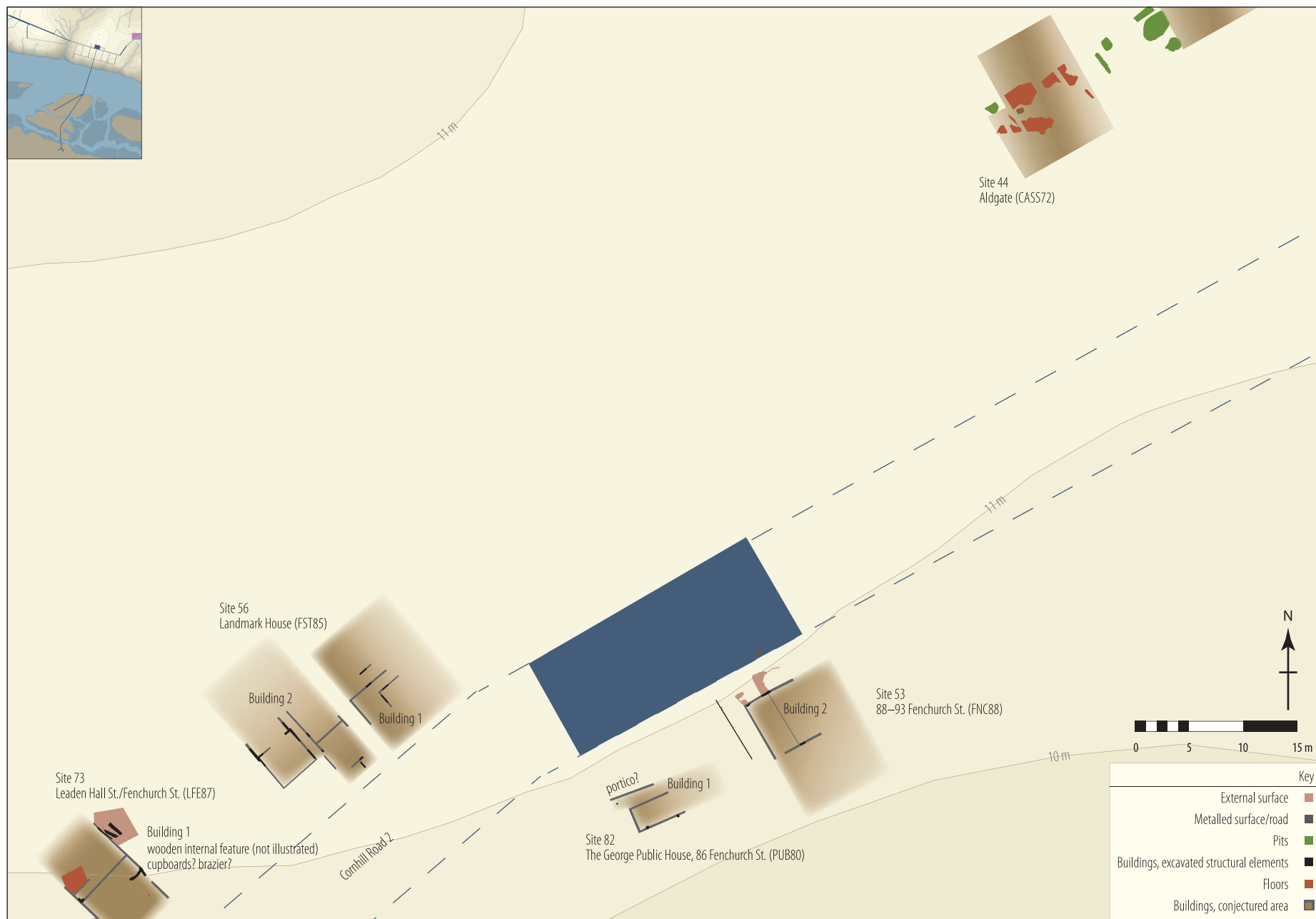


FIGURE 56 Sites 44, 53, 56, 73, and 82, Group 3, along Cornhill Road 2, c. AD 60/61 (cf. Figures 24 and 55). Scale 1 : 500.

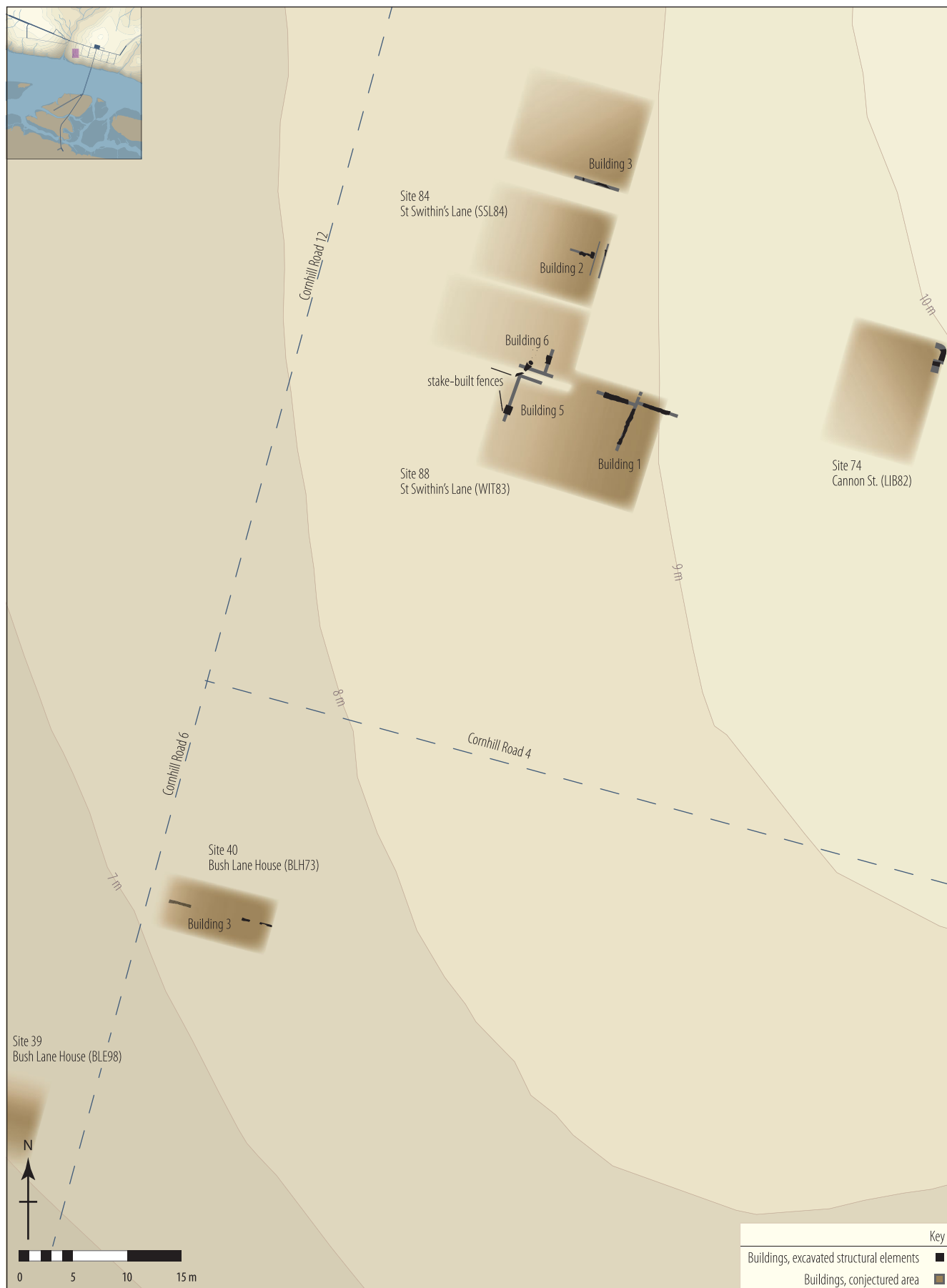


FIGURE 57 Sites 39, 40, 74, 84, and 88, Group 3, along conjectured Cornhill Roads 4, 6 and 12, c. AD 60/61 (cf. Figure 25). Scale 1 : 500.

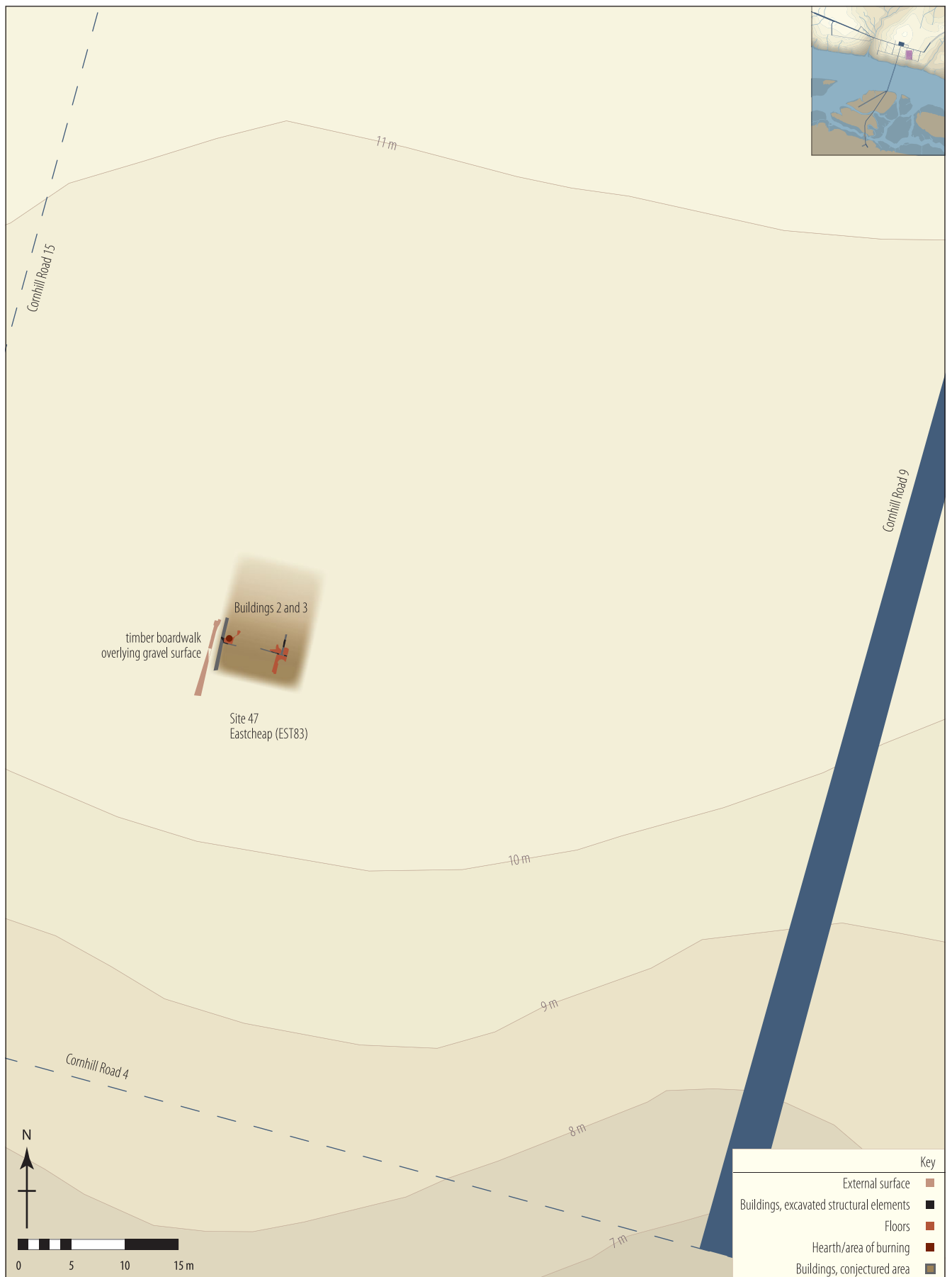


FIGURE 58 Site 47, Group 3, west of Cornhill Road 9, c. AD 60/61 (cf. Figure 26). Scale 1 : 500.

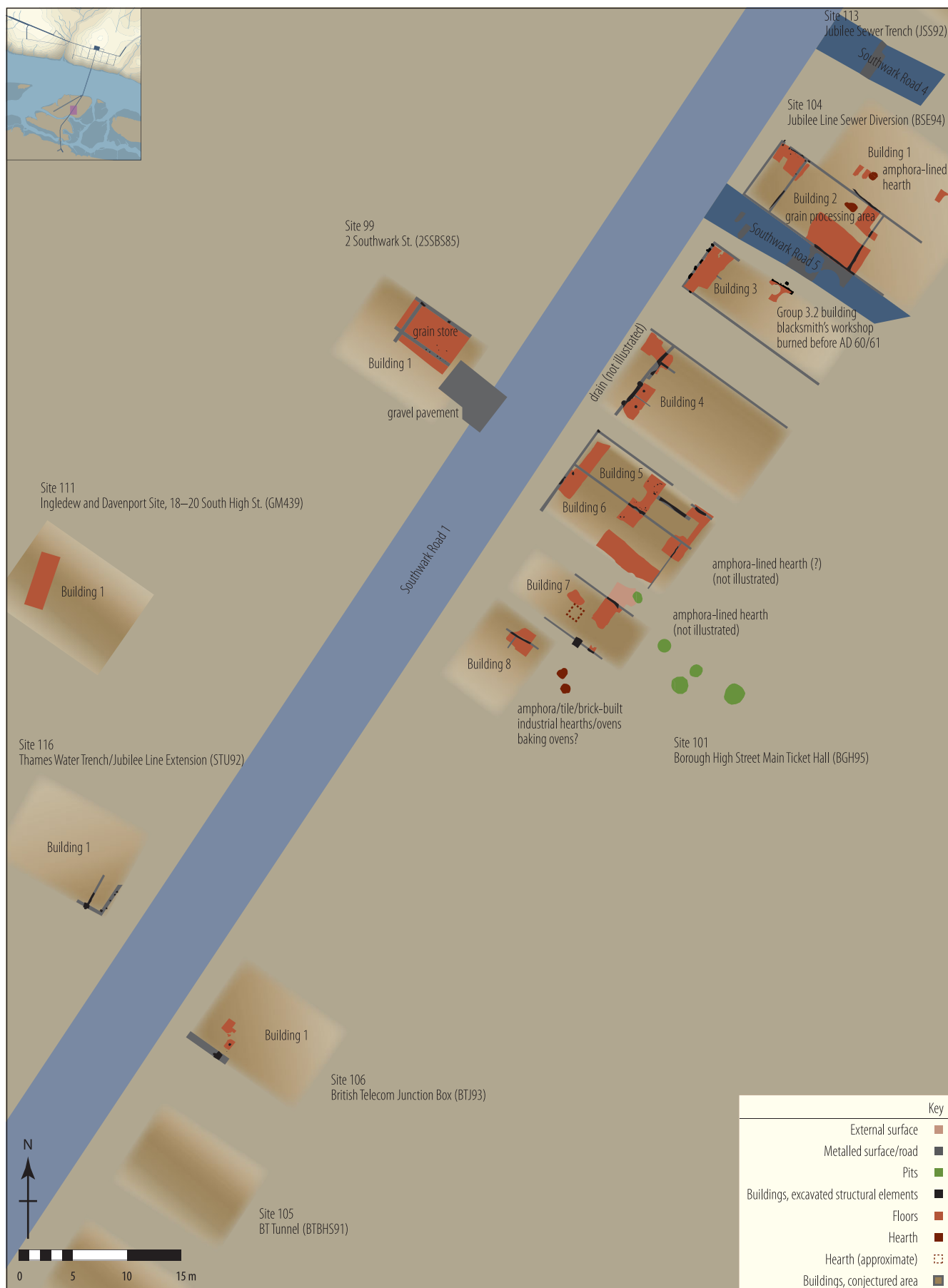


FIGURE 59 Sites 99, 101, 104, 105, 106, 111, 113, and 116, Group 3, along Southwark Road 1, c. AD 60/61. Scale 1 : 500.

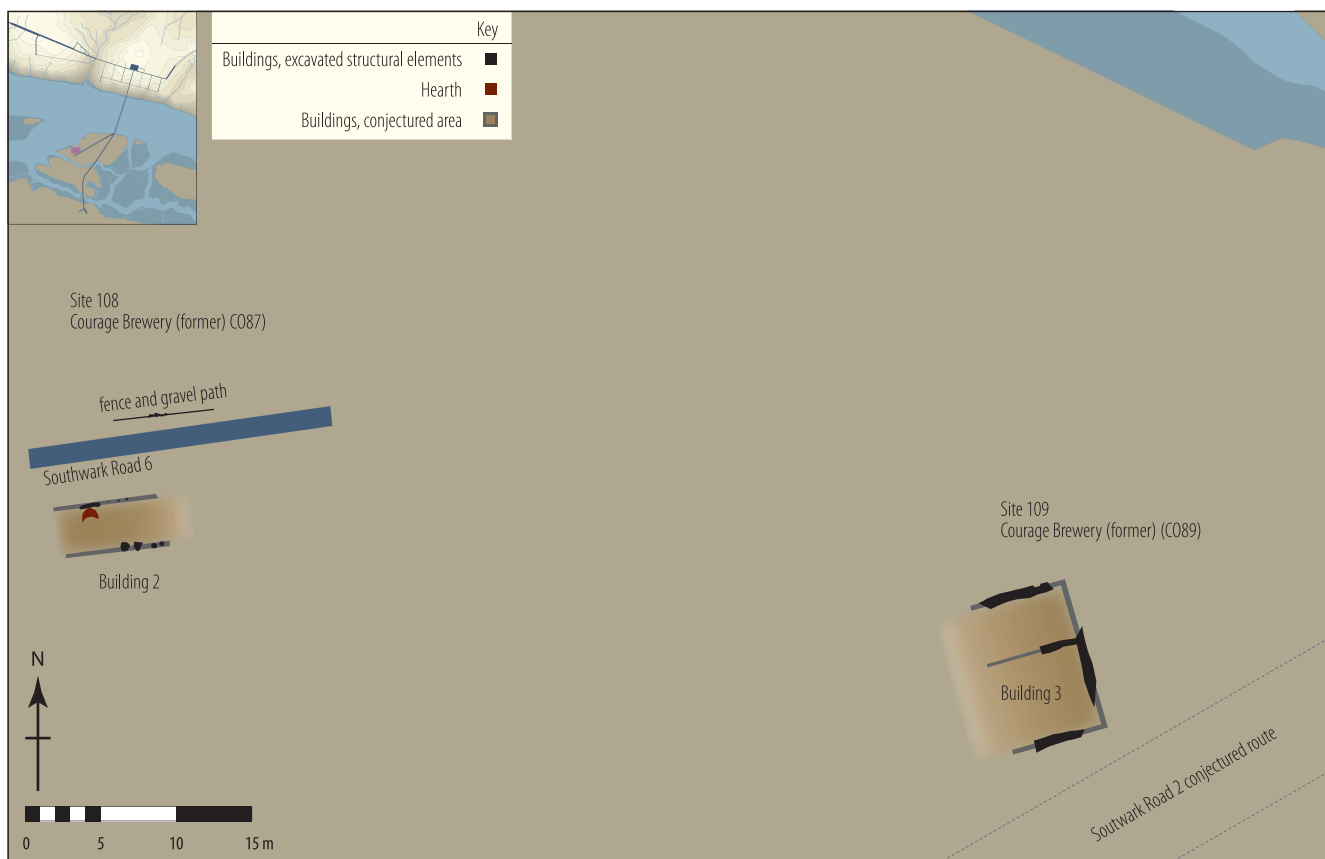
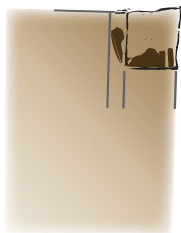


FIGURE 60 Sites 108 and 109, Group 3, on the northern eyot. Scale 1 : 500.



FIGURE 61 Site 100, Group 3, along Southwark Road 1 on the mainland. Scale 1 : 500.



Site 2 - Building 1*
Slot for vertical and tapered timbers with walls constructed of two or three rows of brickearth-packed hazel wattles with withies woven around the wattles; brickearth floors with an area of planking



Site 3 - Building 1
Slots for ground beams; fragments of red and plain plaster; no floor identified



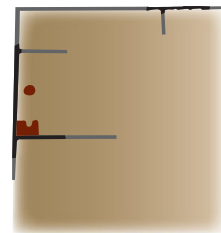
Site 3 - Building 2
Slots for ground beams; no floor identified



Site 3 - Building 3
Slot for ground beam; no floor identified



Site 5 - Building 2*
Ground beams on timber piles onto which sill beams were laid, walls of brickearth/clay, wattle, and timber; no floor identified



Site 5 - Building 3*
Ground beams on timber piles, walls of brickearth/clay, wattle, and timber; internal hearth within a semi-circular, open-fronted brickearth/fragmented tile breastwork



Site 5 - Building 4*
Ground beams (survived intact) with daub walls (at least in part); no floor identified (brickearth?)



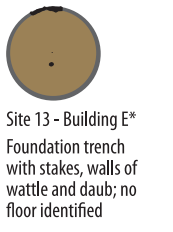
Site 13 - Building B*
Wooden posts (postholes and postpads) with timber-and-clay walls; floors of brickearth



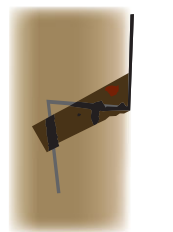
Site 13 - Building C*
Foundation trench with internal partition walls represented by stakeholes; floor of brickearth



Site 13 - Building D*
Foundation trench with stakes, walls of wattle and daub; no floor identified



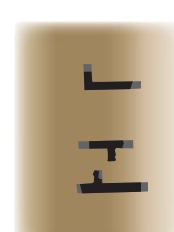
Site 13 - Building E*
Foundation trench with stakes, walls of wattle and daub; no floor identified



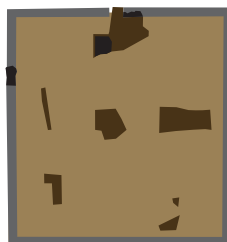
Site 16 - Building 11*
Slots for ground beams, no evidence for wall type; floors of brickearth and gravel



Site 16 - Building 13*
Slots for ground beams, brickearth sills, and stakes; floors of brickearth



Site 17 - Building 2
Slots for ground beams and posts; no floor identified (brickearth?)



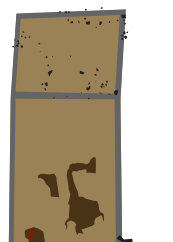
Site 19 - Building 1
Slots for ground beams and stakes; floors of brickearth



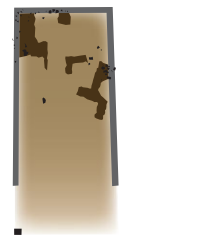
Site 19 - Building 2
Slot for ground beam; floor of mortar



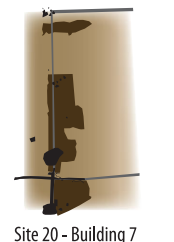
Site 20 - Building 1
Stakes mark foundations; no floor identified



Site 20 - Building 5*
Stone dwarf wall and stakes, walls of wattle and daub; floor not described (brickearth?)



Site 20 - Building 6*
Slot for ground beam and stakes/posts; walls of wattle and daub; floor not described (brickearth?)



Site 20 - Building 7
Slots for ground beams and stakes; floor not described (brickearth?)

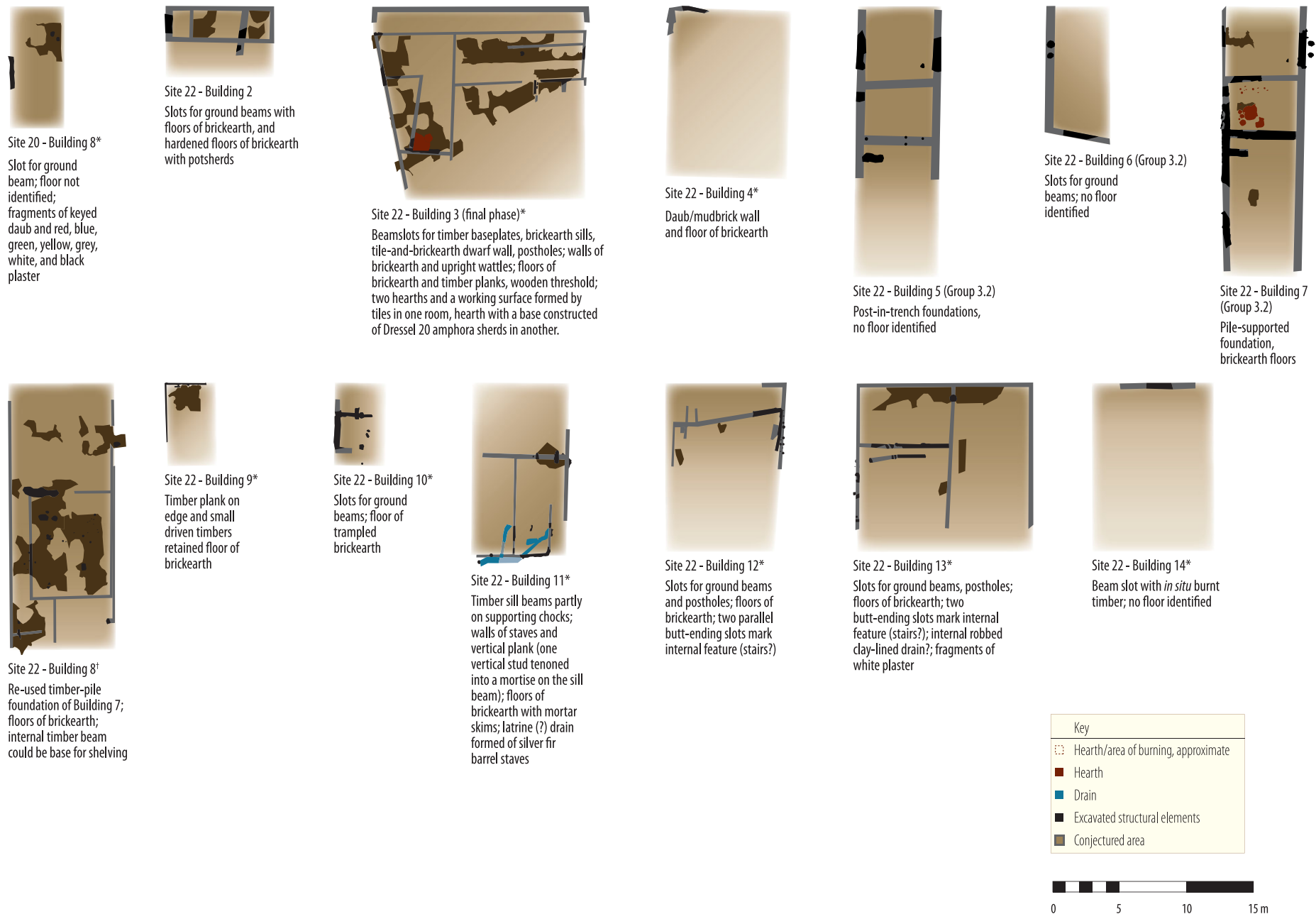


FIGURE 62 Late pre-Boudican building plans, Group 3. Top of each plan is the side nearest a road or the waterfront (i.e. the assumed 'front'). Asterisk (*) indicates a building burnt in the Boudican fire, cross (†) indicates a building possibly burnt in the Boudican fire. Scale 1 : 400.



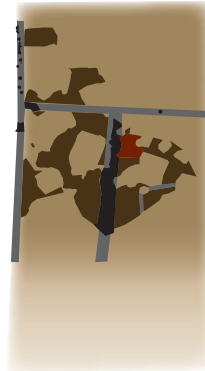
Site 22 - Building 15*
Brickearth sills reinforced with small upright timbers, stakes, and vertically-set planks; floors of brickearth and timber planks



Site 22 - Building 16*
Piles supporting brickearth slab cut by slots for ground beams (some burnt *in situ*); walls of brickearth and mudbrick; floors of brickearth and with timber thresholds and gravel



Site 22 - Building 23*
Driven timbers and localised piling beneath internal walls, brickearth sills; floors of brickearth; burnt timbers possibly represent shelving



Site 22 - Building 25*
Pile-supported brickearth sills with structural upright timbers, post pad; floors of brickearth; double-planked timber box set into floor near hearth



Site 23 - Building 3
Stakeholes; no floor identified



Site 23 - Building 4
Stakeholes; floor of beaten earth; hearth of brickearth associated with working hollow (?) made of clay nodules and enclosed by timber baseplates; internal well



Site 26

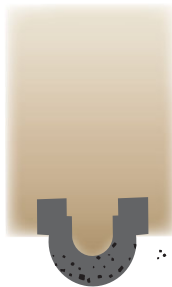
Building E
Postholes, clay sill; floors of sand and clay

Building F
Pile-supported; raised timber floor

Building G
Post-in-trench foundation



Site 30 - Building B*
Square timbers set in slots; floor of timber



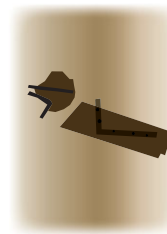
Site 37 - Building 1
Twenty oak piles arranged in semicircle consolidated foundations which do not survive



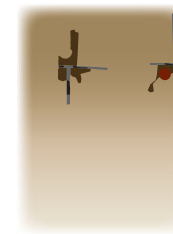
Site 38 - Building 2*
Slots for brickearth sills; floors of beaten earth



Site 40 - Building 3*
Slots for groundbeam, stakeholes for internal partition



Site 42 - Structures 1, 2, and 3*
Postholes, brickearth sill, timber sillbeam burnt *in situ*; floors not described (brickearth?)



Site 47 - Buildings 2* and 3*
Trench for brickearth sills supported by vertical plank and liquid brickearth mortar, groundbeams (charred in part), brickearth and timber floors; room with pits in brickearth floor



Site 49 - Building 4
Foundation slot with brickearth floor

Southern Proto-Forum Building (phase 1, Group 3.2)

Site 49 - Building 2 phase 1

Timber piles supporting ground beam supporting mudbrick walls with timber shuttering and daub, walls also formed of upright timbers; also a masonry foundation of mortar-bonded flint nodules and pebbles with tile and ragstone fragments with possible timber raft above lowest courses supporting mudbrick wall



Southern Proto-Forum Building (phase 2, Group 3.6)

Site 49 - Building 2 phase 2*
North wall re-built with a clay-and-timber-lined foundation cut filled with with brickearth clay slabs; floors of brickearth with some areas of interleaved metalling; fragments of white, yellow, black, and red plaster and herringbone-pattern-impressed and keyed daub; robbed storage containers set in floor; large deposit of charred grain

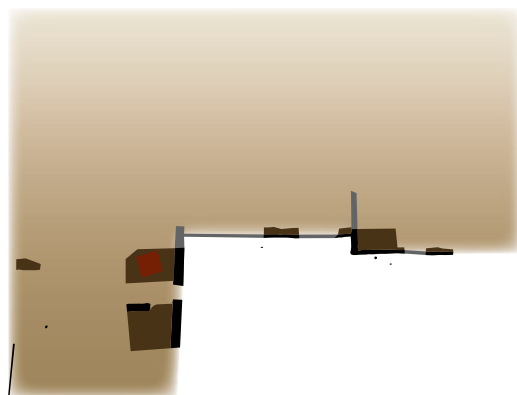


Site 55 - Building 1*

Foundation of flint nodules set in hard mortar supporting planks and another of mudbrick rubble; wall of mudbrick and internal partitions of mudbrick with brickearth rendering; impressed herringbone decoration on walls; floors of brickearth; timber box drain; large deposit of charred grain.

Site 67 - Building 4*

Slots for ground beams supported by timber piles; ragstone-and-mortar supporting a Kentish ragstone block postpad; walls of wattle and daub and of brick; floors of clay; fragments of white, red, and green plaster

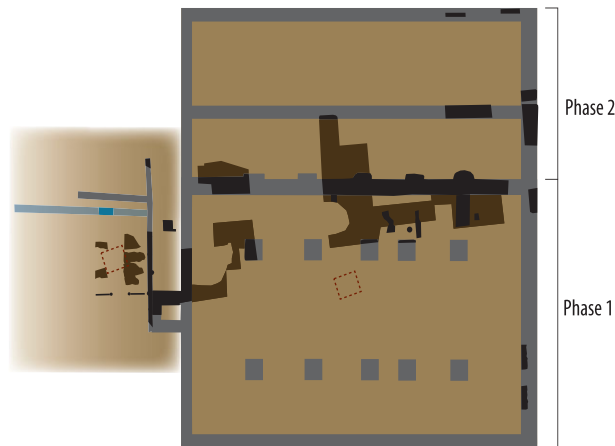


Site 50 (Group 3.2)

Building 37
Slots for brickearth sills; floors of brickearth, gravel, pebble, trodden silt, and timber planks; underwent at least five construction phases (not all illustrated) where rooms were refloored and reconfigured

Building 38
Slot representing foundation

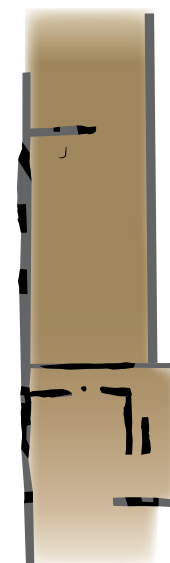
Building 39
Driven timbers represent foundation



Site 50 (Group 3.6)

Building 14* and 40*
Ragstone-and-brickearth-packed post-in-trench foundation; walls of plank-lined mudbrick or brickearth; floors of brickearth, of limestone and ragstone rubble mixed with brekearth overlain by brickearth, of clean sand and gravel, of timber planks, and timber threshold burnt *in situ*; tile-built cess-filled drain capped with consolidation material of tile, limestone, and brickearth

Masonry-Founded Building, Building 12*
Gravel-and-mortar banded foundations; walls of brickearth and timber, internal columns supported by gravel-and-mortar bases, pilasters on northern façade (phase 1) supported decorative pilasters; floors of brickearth, gravel, and timber planks



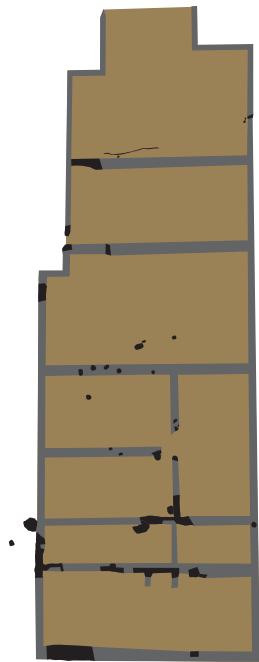
Site 51 - Building 4 (Group 3.2)

Slots for ground beams, postholes and stakeholes; no floor identified

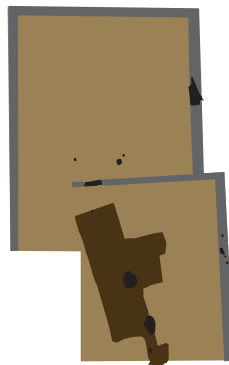


Site 51 - Building 5 (Group 3.2)

Slots for ground beams, postholes and stakeholes; no floor identified



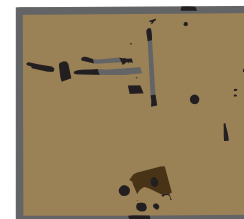
Site 51 - Building 12*
Slots for ground beams, postholes and stakeholes, brickearth sills



Site 51 - Building 14†
Slot for ground beams, stakeholes and postholes, open at rear to area of pits



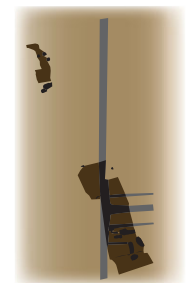
Site 51 - Building 16*
Slot with driven stakes, burnt posts *in situ*; floors of rammed brickearth and timber (floor joists found); keyed ceramic walling



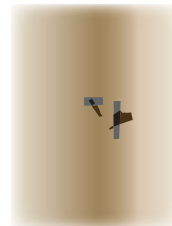
Site 51 - Building 17*
Slots for ground beams, postholes and stakeholes; internal timber partition wall; floors of brickearth and gravel; double baseplate represents internal feature (bench?)



Site 51 - Building 18†
Slots for ground beams, postholes and stakeholes; floors of brickearth



Site 51 - Building 24 phase 2*
Ground beam represents central partition; walls of wattle and daub and mudbricks; floors of timber planks and of brickearth; keyed daub



Site 51 - Building 30†
Slot for ground beam, brickearth sill; floor of brickearth



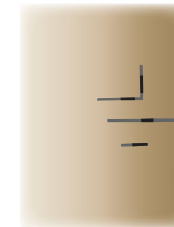
Site 51 - Building 42
Slot for ground beam, postholes, stakeholes;



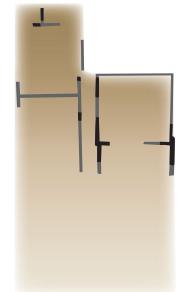
Site 53 - Building 2*
Slot for ground beams, posthole; floor of brickearth



Site 54 - Building 1
Slot for ground beam; floor of clay



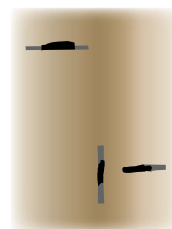
Site 56 - Building 1*
Brickearth sills with wattle-and-daub walls; floors of brickearth, brickearth and sandy gravel, and timber



Site 56 - Building 2*
Timber ground beam, brickearth sills with postholes, brickearth sill with a vertical timber plank; floors of brickearth overlain by clay overlain by pebbles, of brickearth, of gravel and mixed clay, and possibly of timber



Site 51 - Building 27*
Slot for ground beam, postholes, stakeholes, foundation of gravel to support mudbrick wall; floor of brickearth



Site 56 - Building 12 (Group 3.2)
Slots, postholes, stakeholes; floors of gravel and brickearth



Site 56 - Building 13 (Group 3.2)
Slot for ground beam, postholes; floor of brickearth



Site 56 - Building 14 (Group 3.2)
Brickearth sill with floor of brickearth



Site 67 - Building 5*
Pile-supported foundations for timber ground beams, slots for ground beams; walls of wattle and daub and brick; floors of clay; fragments of white, red, and green plaster



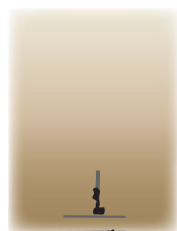
Site 67 - Building 6*

Pile-supported foundations for timber ground beams, slots for ground beams; walls of wattle and daub and brick; floors of clay; fragments of white, red, and green plaster; sunken semi-basement; internal storage pit with vertical sides filled with fire debris



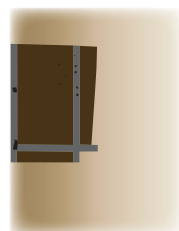
Site 82 - Building 1*

Brickearth sill, postholes; floors of brickearth and clay; possible portico



Site 84 - Building 2†

Probable post-pad; floors of brickearth and brickearth and gravel; mortar and plaster present



Site 99 - Building 1*

Slots with burnt timber ground beams, stakeholes; floor of brickearth (burnt) with remains of matting or planks; daub (vitrified) with lath imprints, Purbeck marble wall veneer; deposit of charred grain



Site 100 - Building 1

Floor of brickearth



Site 71 - Building 2*

Slot for ground beam with floor of gravel



Site 84 - Building 3†

Slot for ground beam; floor of brickearth



Site 100 - Building 2

Floor of brickearth



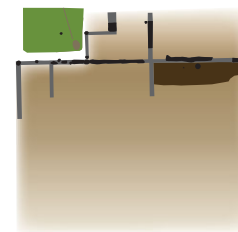
Site 73 - Building 1*

Slots for ground beams, postholes, stakeholes, brickearth sills; walls of brickearth with wattle frames, of brickearth on a possible timber ground beam and upright post in a foundation trench, of wattle pannels; floors of brickearth (possibly covered with straw or raffia matting) and timber; possible wooden internal feature



Site 74 - Building 1

Slots representing foundations, no floor identified



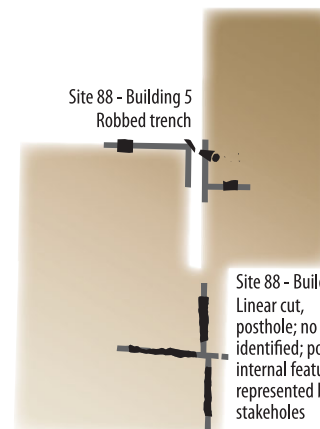
Site 75 - Building 1*

Brickearth sills, postholes, stakeholes; walls of keyed brickearth; floors of brickearth, timber, and brickearth and gravel; large rectangular cut/pit represents possible cellar



Site 75 - Building 2*

Brickearth sill capped with timber plank, posthole, stakeholes; floor of brickearth



Site 88 - Building 5
Robbed trench

Site 88 - Building 6
Linear cut, posthole; no floor identified; possible internal feature represented by stakeholes



Site 101 - Building 3 (Group 3.2)

Postholes, stakeholes; walls of wattle; floor of brickearth; possible smithing remains (cut features, hammerscale, ash, metalworking waste, and charred grain deposits)

Site 88 - Building 1
Slots for ground beams, clay-packed posts, gravel-packed post-in-trench; no floor identified

Key	
	Hearth/area of burning, approximate
	Hearth
	Drain
	Excavated structural elements
	Conjectured area

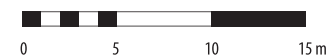
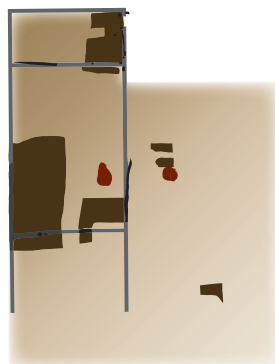
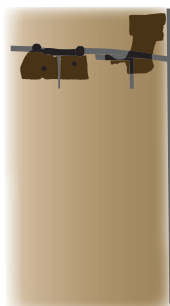


FIGURE 62 (cont.)

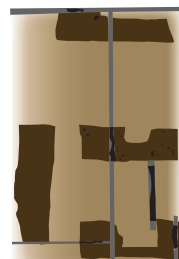


Site 101 - Building 2* Site 101 - Building 1/
Site 104 - Building 1*

Timber ground beams, postholes, stakeholes; brickearth walls with posts and stakes; floor of brickearth with rush covering; Dressel 20 amphora (bottom half of) set into floor (not illustrated); deposit of charred grain and stems



Site 101 - Building 4*
Slots for ground beams;
floor of brickearth



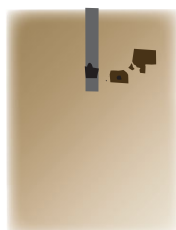
Site 101 - Buildings 6* and 5*
Slots for ground beams,
postholes; floors of clay;
amphora-lined cut feature may
represent hearth (not illustrated)



Site 101 - Building 7*
Slot for ground beam;
floors of timber boards
and compacted clay;
amphora-lined hearth
(not illustrated)



Site 101 - Building 8
Slot for ground beam; floor
of clay



Site 106 - Building 1*
Timber post-and-plank
internal partition; floors
of clay;



Site 108 - Building 2
Trench with clay-packed
posts; floors of earth or
brickearth



Site 109 - Building 3
Post-in-trench, possible
slot for ground beam; no
floor identified



Site 116 - Building 1*
Slot for ground beam,
postholes; floor of packed
clay with amphora sherds

Key	
	Hearth/area of burning, approximate
	Hearth
	Drain
	Excavated structural elements
	Conjectured area

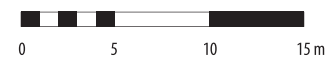


FIGURE 62 (cont.)

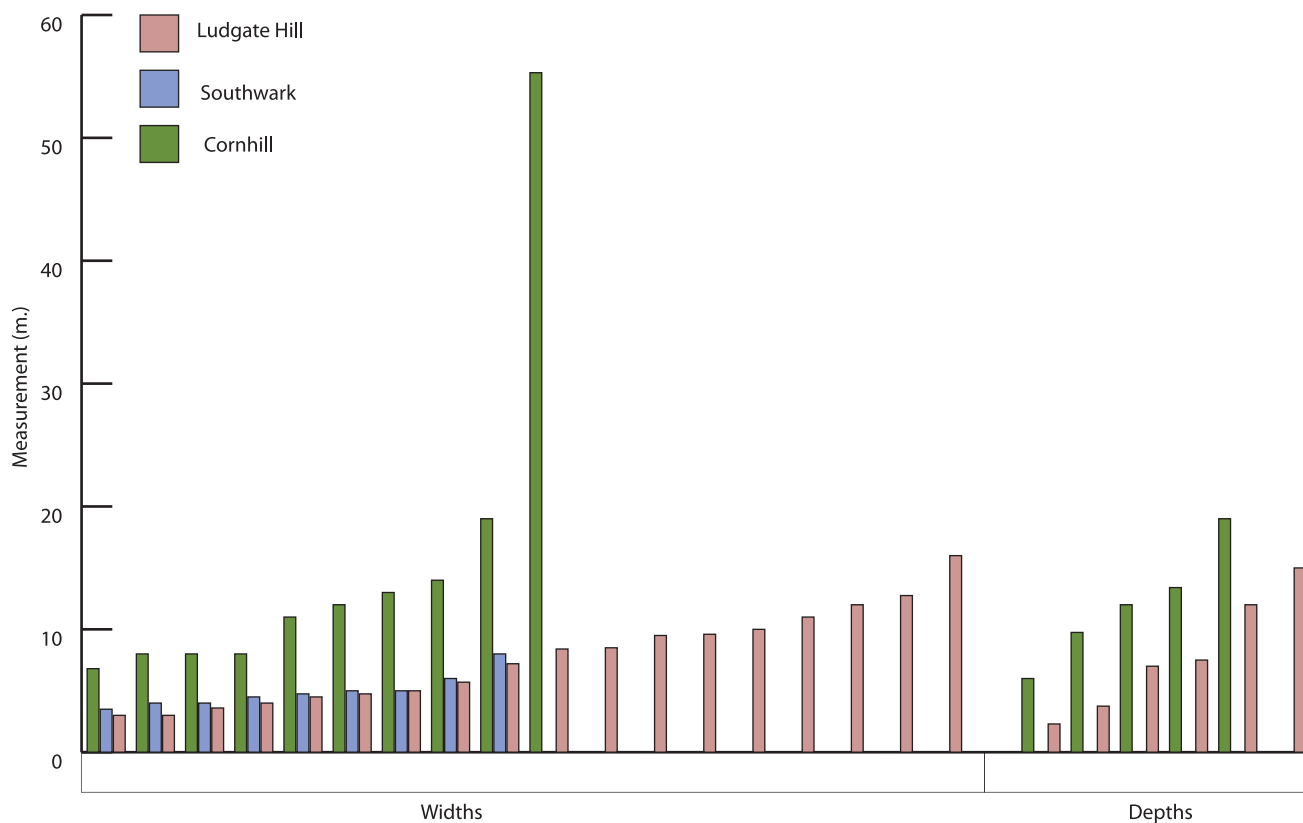


FIGURE 63 Graph comparing known width and depth measurements, Group 3, where at least one measurement is known.

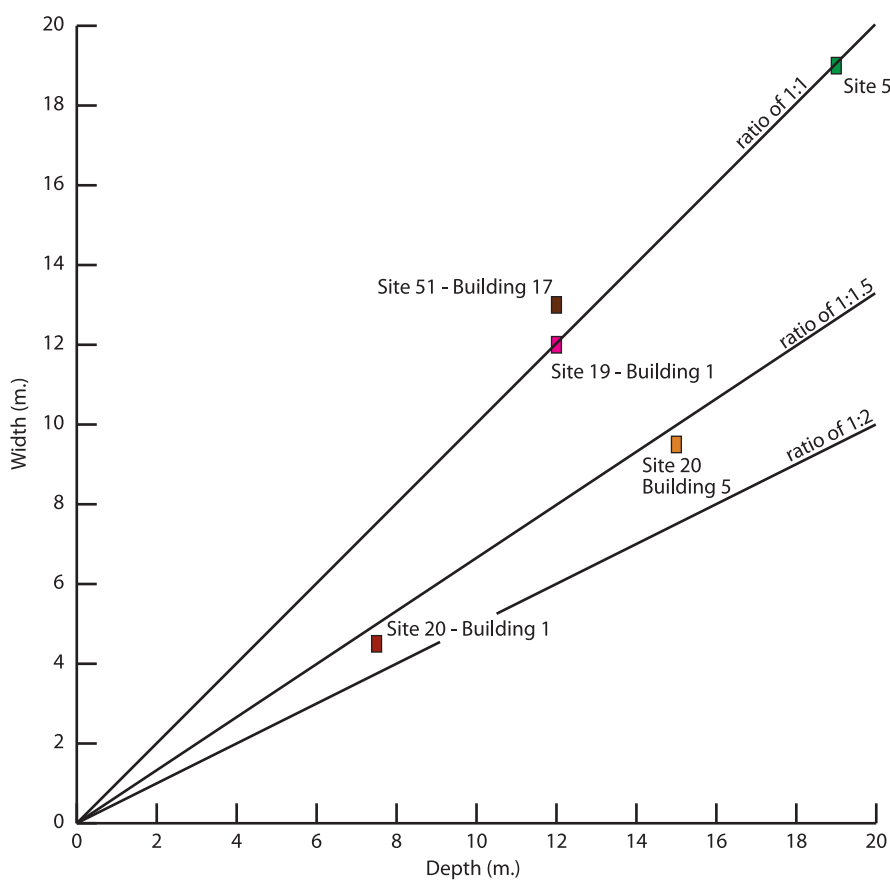


FIGURE 64 Scatter plot comparing width and depth measurements, Group 3 (excluding the southern proto-forum building) where both measurements are known.

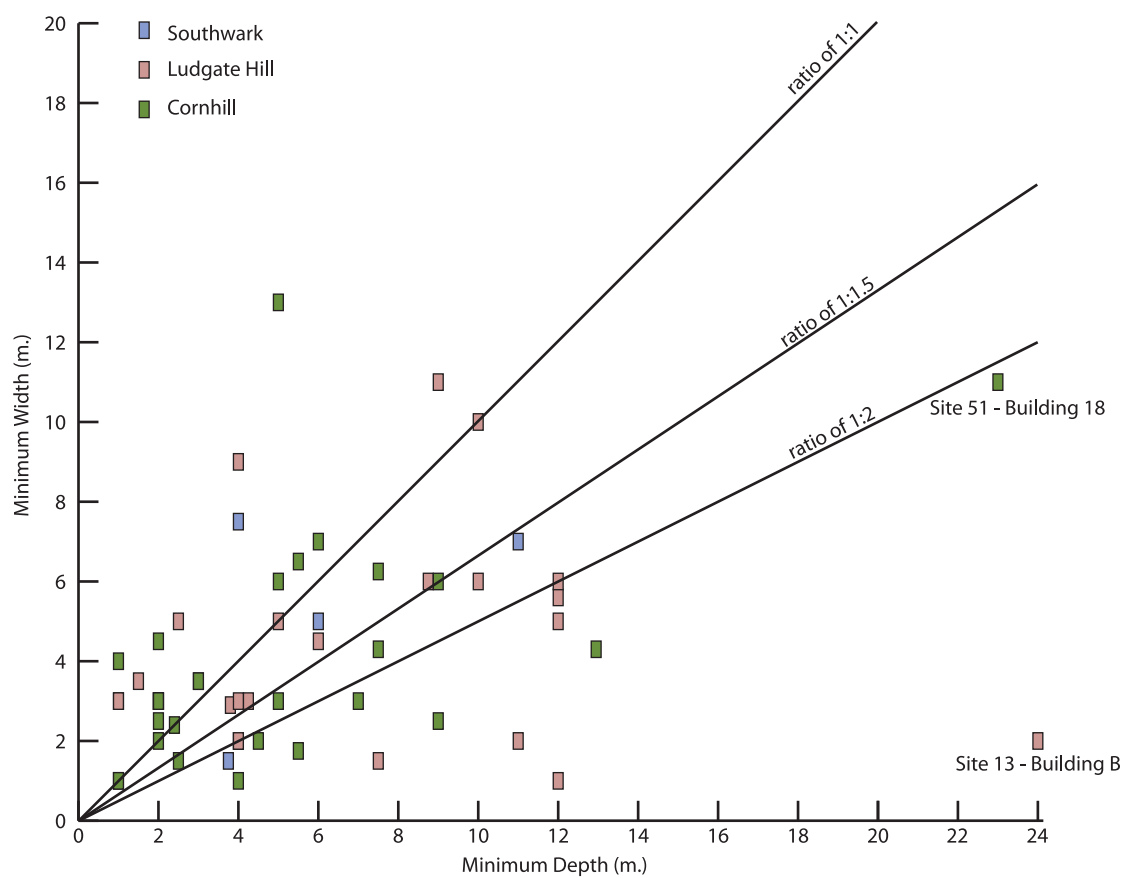


FIGURE 65 Scatter plot comparing minimum width and depth measurements, Group 3 (excluding the southern proto-forum building).

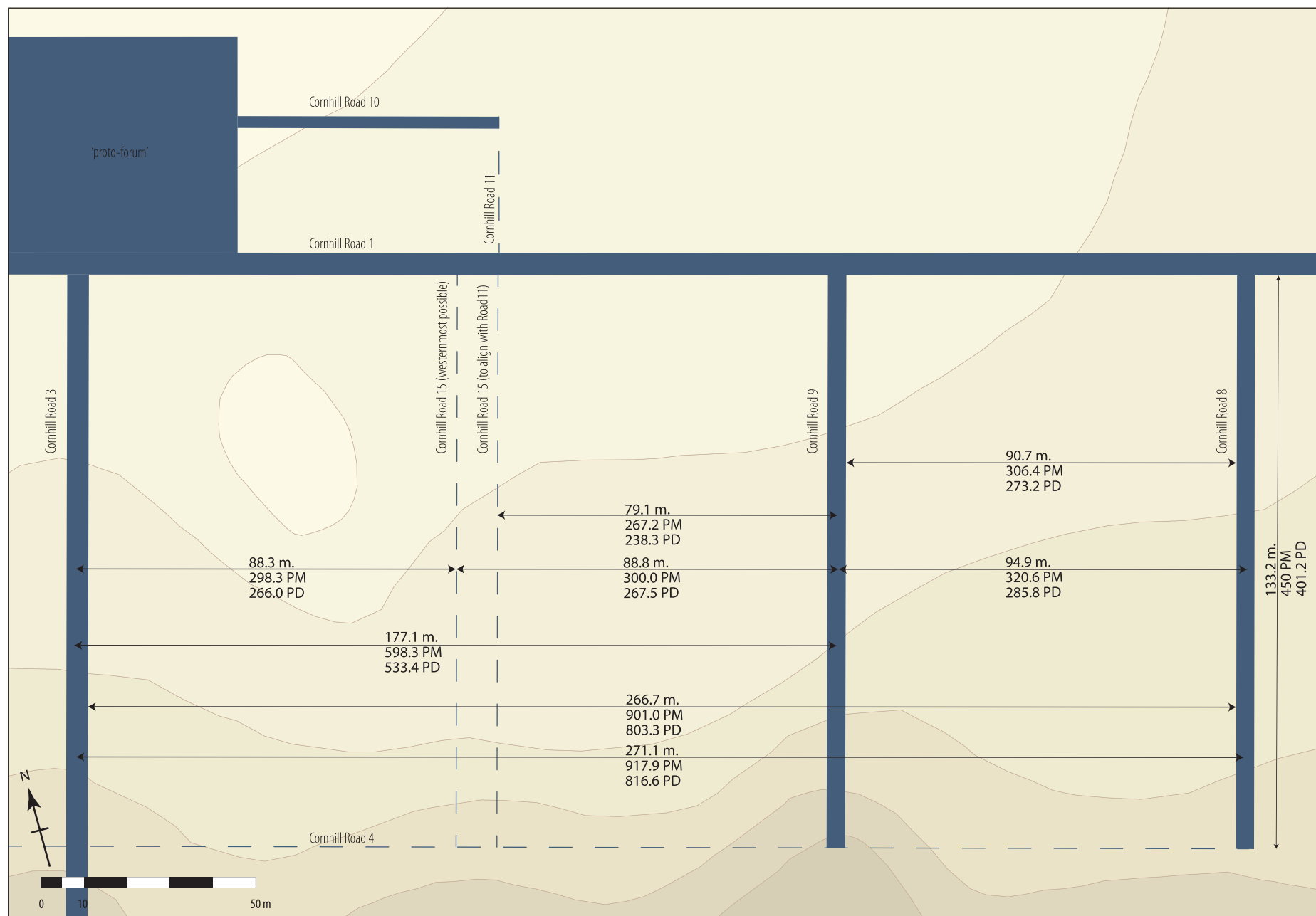


FIGURE 66 Measurements of distances between roads on Cornhill in metres and the two forms of Roman feet. Scale 1 : 1,250.

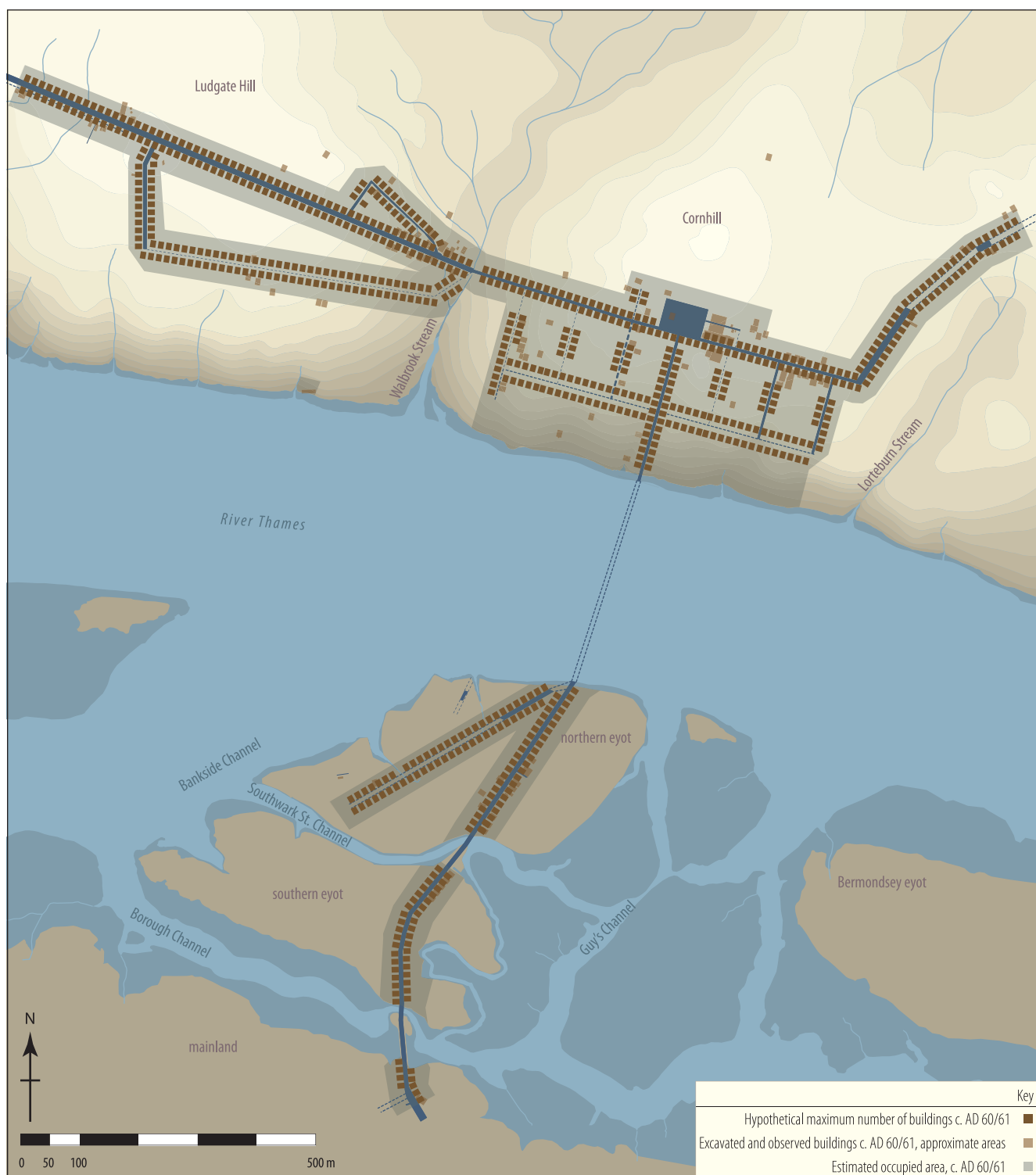


FIGURE 67 Estimated occupied area, also showing excavated and conjectured buildings, c. AD 60/61. Scale 1 : 10,000.

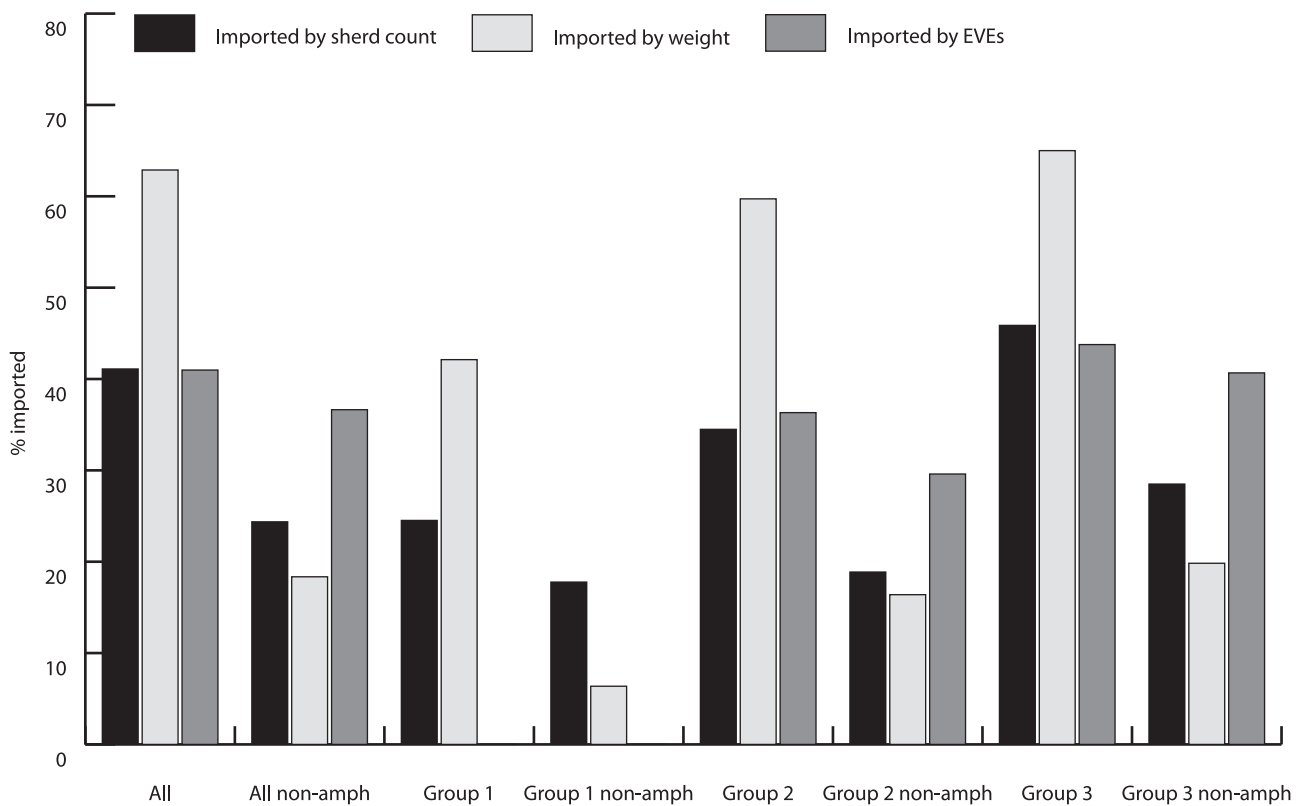


FIGURE 71 Bar graph comparing the proportions of imported ceramics in the different Group assemblages.

The differentiation between the three zones of the settlement is clear in most material assemblages. Evidence of soldiers and/or veterans occurs in localised areas, in relation to several other activities, including metal-working and a grain storehouse. Overall, however, the evidence for soldiers and veterans in early Londinium is scarce and the low proportion of lamps provides supporting evidence for the lack of a stable military population. It is likely that they could have been seconded to aid the administration or that they came to Londinium only for short periods of time, in the way described by the Vindolanda texts (e.g. Tablet 154 in Bowman 1994). There are no procuratorial tile stamps from this period, which probably also indicates that it was not the seat of imperial administration, although it could have been related to the power of a *civitas*, such as Durovernum. The town did not function as a religious centre, a military headquarters, or an administrative centre, and

is more likely to have been a centre of production, importation, and trade.

The diversity of occupations, cooking and dining traditions, conspicuous display, and social statuses in early Londinium is demonstrated through the excavation of a significant area of the original settlement. Tacitus' town of merchants and traders is probably a caricature of the town around AD 100; this investigation has shown that many others contributed to the functioning of the town, including craftsmen, millers, bakers, butchers, and veterans. The differences between the three communities separated by streams is clear, and yet those communities were not homogeneous in themselves. Future excavations are sure to reveal further evidence of structures destroyed in the Boudican fire, and more associated artefact assemblages.

The rich assemblage from this very short time period is, in itself, important. Considering that this study includes

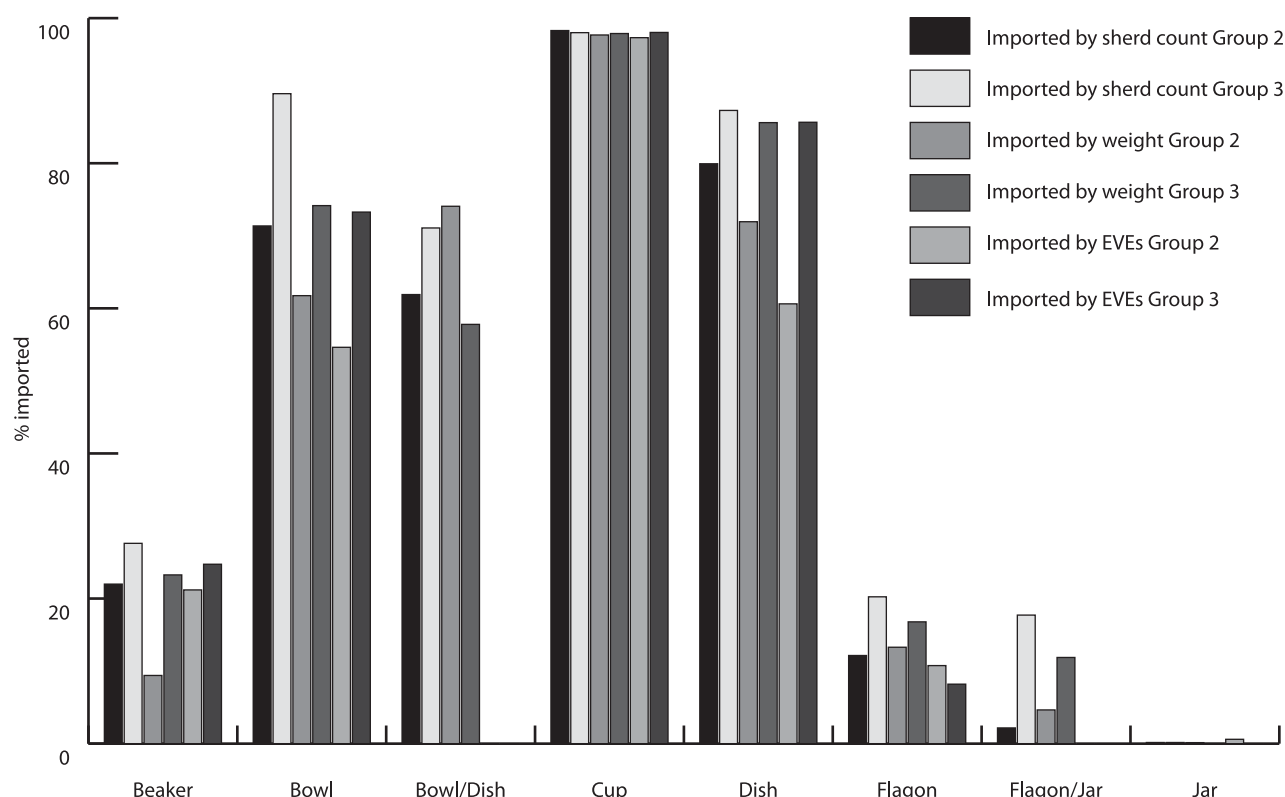


FIGURE 72 Bar graph comparing the proportions of imported ceramics among certain form types.

only deposition from a roughly thirteen-year time period, the quantities of imported material culture are impressive, especially the coins, personal adornment, writing implements, querns, and mortaria. Whatever the mechanism, the population brought with them or acquired the full range of the 'Roman cultural package' very quickly.

ADOPTION, ADAPTATION, AND ASPIRATION

An imported cultural package?

The importation of both ceramic and glass vessels was at its height in the pre-Boudican period, perhaps indicating a less independent and self-sufficient settlement with stronger ties to the Continent than to the local area. There is a discernible increase in imported ceramic vessels from Group 1 to 2 to 3 (Figure 71). The sources from which the inhabitants were acquiring their serving and consuming vessels changed in some respects between

Group 2 and Group 3. Although the flagons and beakers were still primarily sourced from Britain and nearly all of the cups were still imported, the preference for and availability of imported dishes and bowls increased by all measures (Figure 72). This change is probably related to the growing community, increased trade, and improved port facilities.

Overall, the proportions of imported ceramics were at their height in the pre-Boudican period. The principal sources were Gaul and Spain (Figure 73); the vast majority of the amphora-borne goods (including olive oil, wine, *garum*, and *defructum*) were transported from Spain (Figure 74), while the serving and consumption vessels derived primarily from Gaul (especially southern Gaul) and Britain (Figure 75). The serving and consumption vessels most associated with Britain were largely represented by flagons and beakers, few of which were imported (see Figure 72). Very little continuation of LPRIA traditions is visible in the assemblage in

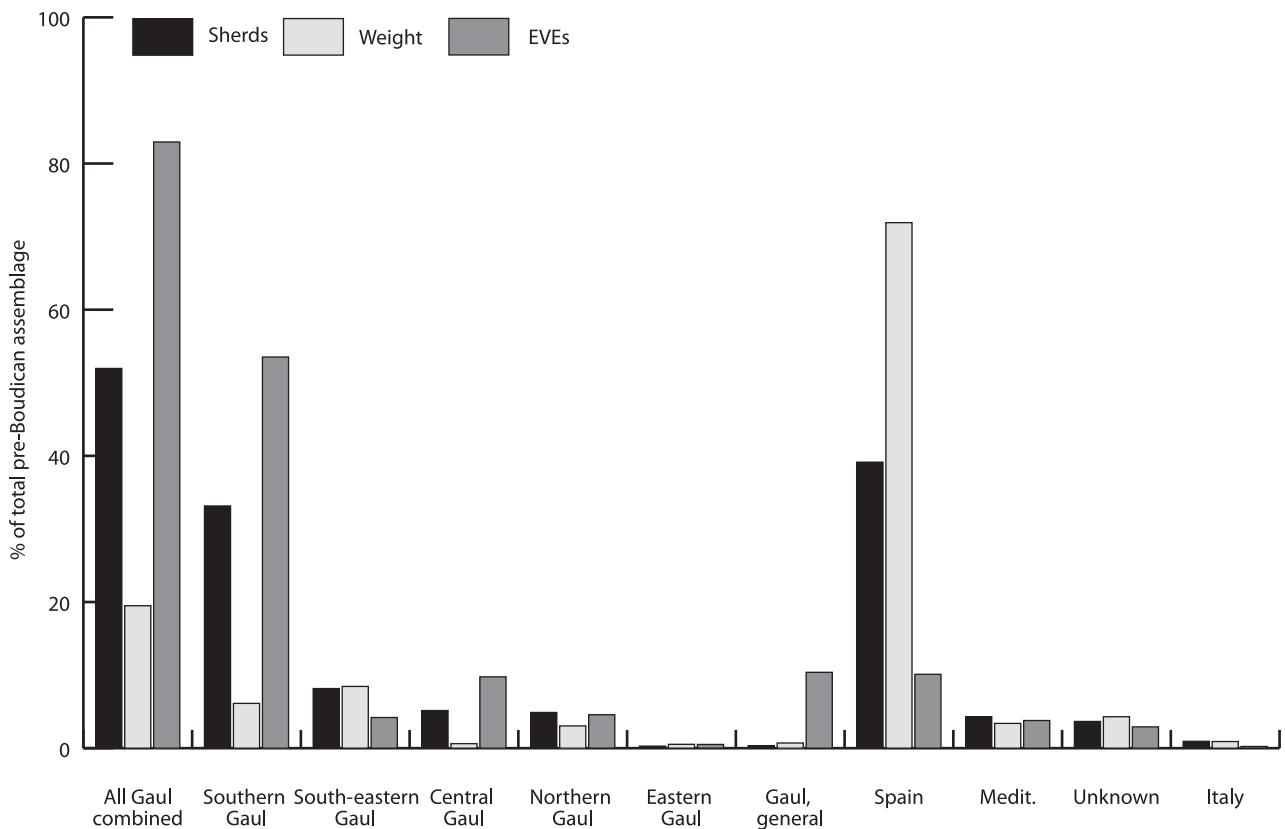


FIGURE 73 Bar graph comparing the origins of imported ceramics from all Groups.

comparison to, for example, early post-invasion ceramic assemblages from Verulamium. In Londinium the cultural package related to food preparation and consumption was primarily Gallic.

Data from discrete, well-quantified, large, pre-Flavian settlement assemblages with which the vessels from pre-Boudican Londinium could be compared are rare. Perhaps the best group for comparison are the ceramics from several sites dating from around AD 40–200 in Essex analysed by Pitts (2008), who found that the urban sites associated with major roads were characterised by Samian vessels, mortaria, flagons, and olive-oil amphorae. Such characteristics tie the populations to a wider tradition of Roman eating habits common to the north-western provinces and perhaps part of a ‘template of consumption for Romano-British urban populations’ (Pitts 2008: 500); Pitts expresses the similarities of urban assemblages in terms of globalisation theory. Contrastingly, Pitts found that the *oppida* assemblages were best

characterised by Gallo-Belgic drinking vessels. Clearly the pre-Boudican Londinium assemblage bears most affinity to the well-connected, urban sites from Essex, although the chronological framework is not equal.

Production centres may indicate with which markets the earliest Londoners had the closest ties. Several ceramic types can be closely sourced. Mortaria, for example, were partly imported from Gaul (Figure 76) in the immediate post-invasion period, although production centres at Verulamium and Eccles (Kent) are also known (Hartley and Tomber 2006: 19). Similarly, Samian ware originated in Gaul, several amphorae types can be closely sourced to their places of production (although amphorae could be reused: see Peña 2007), and, in the pre-Boudican period, all glass vessels and querns were imported from the Continent; the petrology of querns allows them to be closely sourced to Germania. Mortaria are strongly associated with Gaul in this period and their presence in early Londinium is a significant indicator of strong ties to the

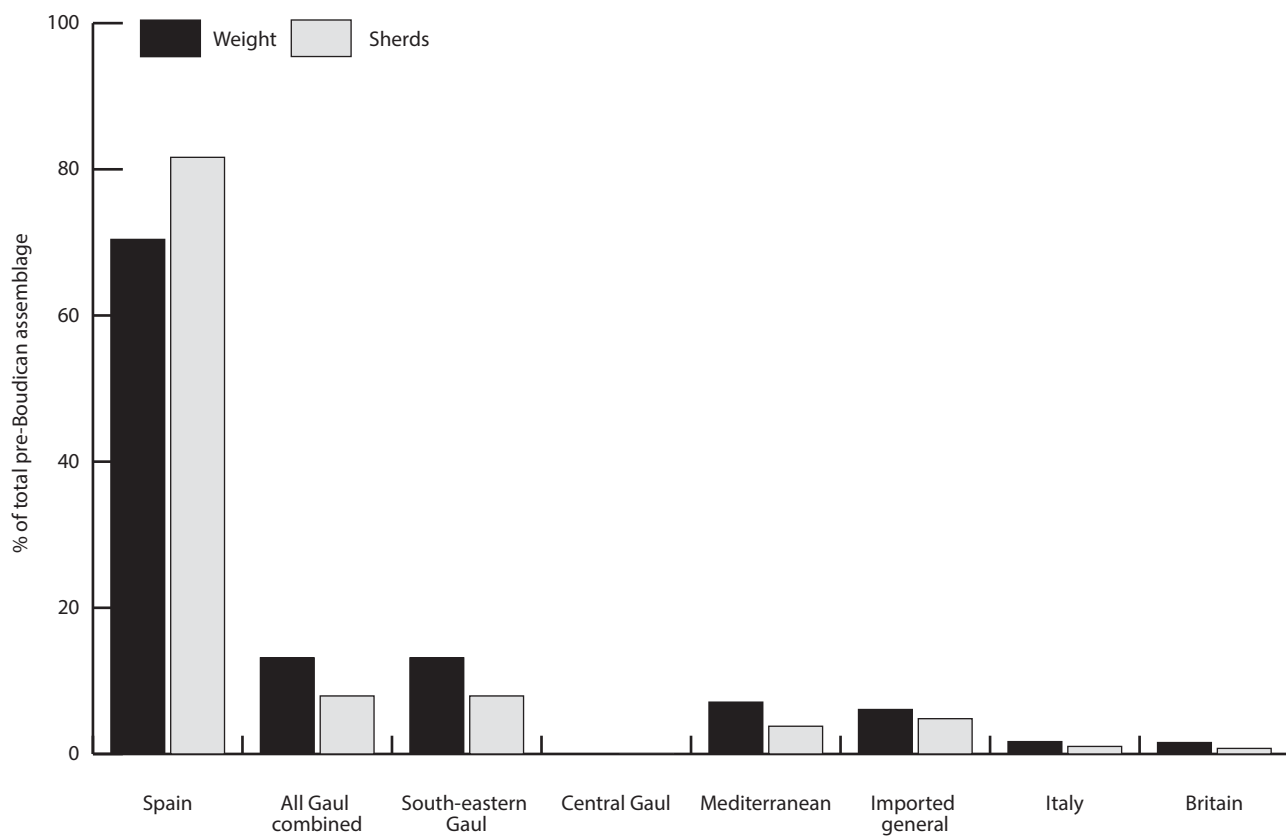


FIGURE 74 Bar graph comparing the origins of amphorae from all Groups.

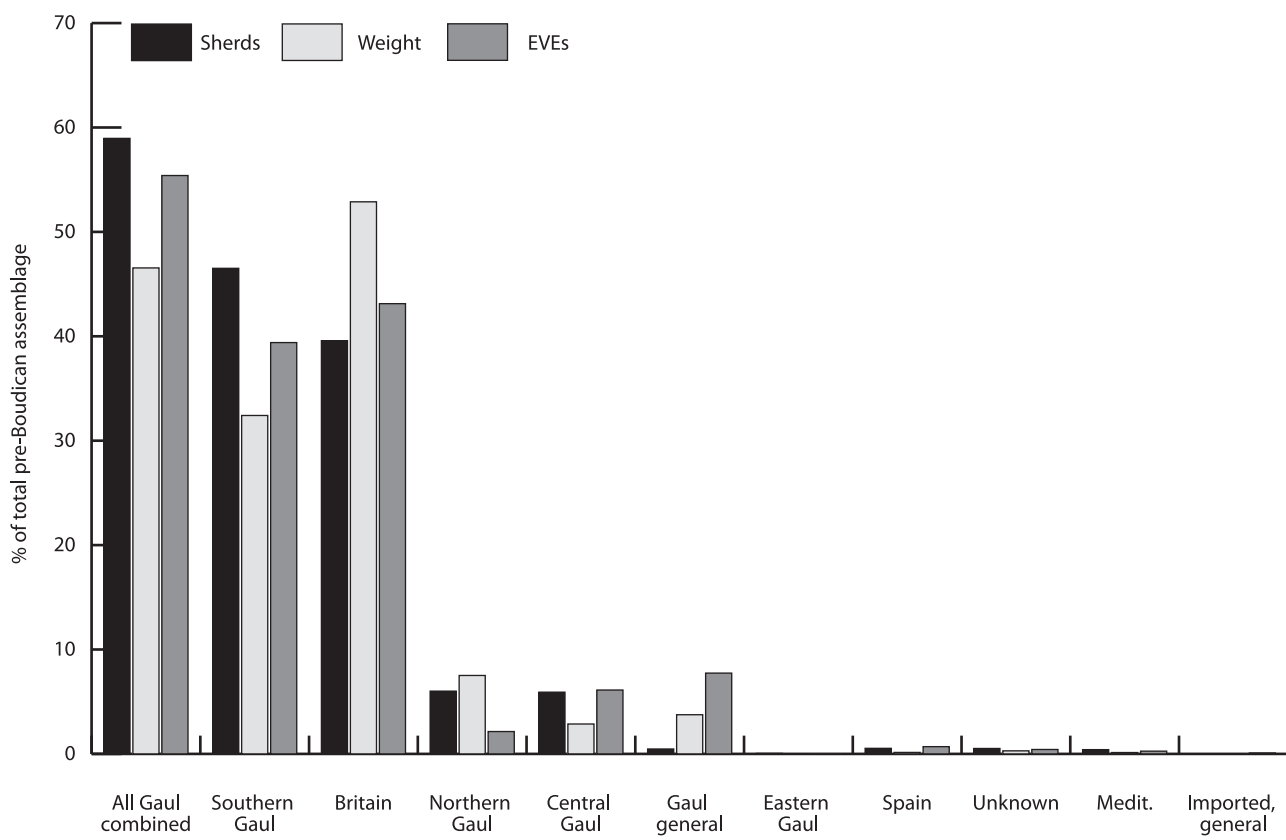


FIGURE 75 Bar graph comparing the origins of serving and consumption vessels from all Groups.

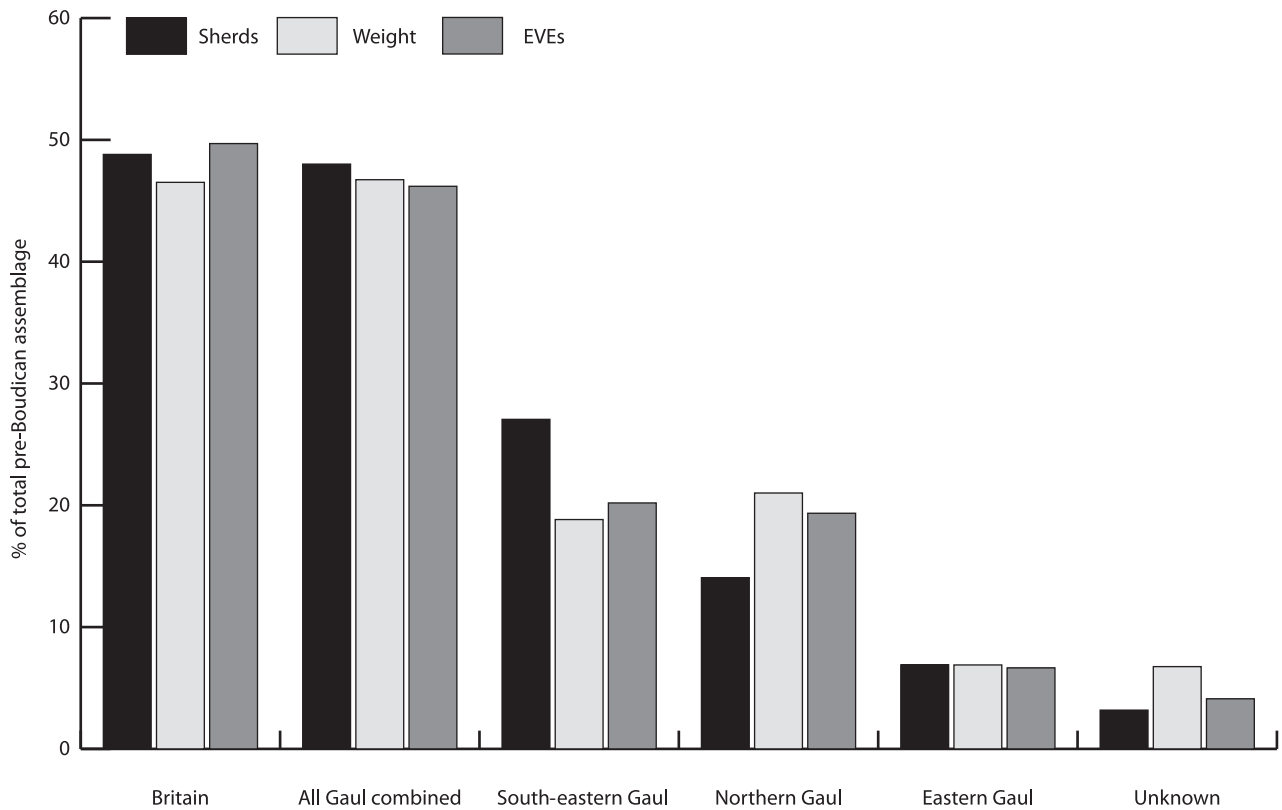


FIGURE 76 Bar graph comparing the origins of mortaria from all Groups.

nearest province on the Continent. Mortaria were not very common at all in the Mediterranean and no imports of mortaria from outside Gaul are known in the pre-Boudican contexts. The local producers of mortaria

(primarily in Verulamium and Eccles in Kent, but also in Londinium itself by the SLOW potter) were almost certainly copying these Gallic examples, which derived primarily from the Rhône and Rhine valleys.

CHARACTERISING EARLY LONDINIUM

INTRODUCTION

The information drawn together here comprises the most detailed dataset yet created of the foundation levels of any urban centre in the Roman Empire. Although still more could have been added with time, and the post-excavation analysis of the sites is unequal, this body of data has no rival.

The distribution maps and feature-level plans included here illustrate the vast quantity of archaeological deposits that are relevant to a discussion of the foundation of Londinium. The (not unproblematic) method employed to compile a visual and relational database by assigning codes containing temporal, spatial, and interpretative information to each archaeological context has allowed for careful, robust, and informed hypotheses of the early growth of the town. For the first time, features that have long attracted attention – such as the large, early ditches – can be appreciated within the context of thousands of other features and interpreted using all available information. The results of this work have already been demonstrated and discussed in the relevant sections of [Chapters 2–5](#), and need not be repeated here.

Through the process of creating the context database and producing the illustrations it became clear that a detailed structural understanding of pre-Boudican Londinium was not only possible, but of the greatest importance to discussion of urbanism across the Roman Empire. The artefact data were so unequally processed and analysed that no true statistical analysis would have been valid without further post-excavation work, but that does not detract from the clear success of combining structures, features, and objects in this synthesis. This final chapter reflects on the greater political and economic importance of early Londinium as well as what this study

can add to discussions of urban planning across the Roman Empire.

Rarely can archaeologists provide an account of a Roman town as it might have been at a specific moment in time, as the ancient population would have experienced it, based on a large body of diverse excavated evidence. Archaeologies of Romano-British towns that describe and analyse four centuries of occupation clearly have time components, but they are usually unable to isolate key periods. The immediate post-invasion period is of particular interest to studies of early urbanism, and the early development of Londinium clearly demonstrates the diversity of urban growth in this period. It is significant that, in London, it is possible to isolate a short phase of civilian life in the early province. Even on the other sites that share the Boudican fire-debris horizon, such an isolation is not as clear: for example, at Colonia Claudia the *colonia* and civilian settlement often cannot be isolated from the earlier reused, reoccupied fortress (Crummy 1988: 33–4). London is, therefore, a particularly important site deserving of detailed, period-specific, analysis. That the Roman levels of London have been so extensively excavated and recorded makes such research possible.

Issues regarding scale and resolution remain, however; this project was hindered by missing and incomplete data, illustrations, and reports, and was necessarily limited in scope. The broad approach used here reduces the resolution possible and precludes the detailed discussion of individual buildings, roads, open spaces, and artefact groups. Undoubtedly, future excavations and publications will enhance or alter the findings presented here. The patterns that have been drawn out were selected because they allowed the strongest arguments to be

presented from them, but certainly they do not represent the only interesting studies that could be attempted or questions that could be posed. The database created for this project and the structural framework presented in [Chapters 2, 3, and 4](#) allow future artefact specialists to produce more detailed analyses entrenched in this improved understanding of the early town.

CIVIC POWER STRUCTURE

The analysis undertaken in the previous four chapters provides the opportunity to discuss the nature of urban planning and civic power structures in early Londinium. Urbanism, as an ideology, was a central part of the planning of the Cornhill core of Londinium, and, perhaps, may have been part of the intentions of the early road builders. The symmetry and orthogonality of Cornhill Road 1 and Cornhill Road 3, in conjunction with the settlement boundaries suggested by the position of the angle between Cornhill Roads 1 and 2 and the Walbrook crossing, could indicate that those building the roads were aware of plans for a future town: the intersection of Cornhill Road 1 with the Walbrook and with Cornhill Road 2 may have functioned as control points along the Calleva-Colonia Claudia road. Early military initiatives in road building facilitated, but were not necessarily causal factors of, the foundation of the town: the road and bridge construction make sense in the context of the AD 49 consolidation of the south-east, foundation of Colonia Claudia, and move westwards of the legion (see also [page 15](#)). The later town planning was probably organised by a decision-making group, not necessarily the military or imperial administration, as the work undertaken to build the roads and proto-forum would have required significant organisation of labour (see [pages 59–61](#)).

There is a pivotal relationship between the roads and the first structures that is important to the motivations for and the circumstances of the foundation of Londinium. These main roads are stratigraphically earlier than buildings aligned to them, and the dendrochronological evidence suggests that the main roads were built during

or after the winter of AD 47/48 (see [page 21](#)). The lack of preparation for a town, in the form of gaping quarry-pit holes in the ground and large ditches in the very locations where structures would later be built, hindered the earliest settlement by requiring extra labour in quarrying material to fill in the holes. That Cornhill Road 1 runs parallel to the Thames shore and perpendicular to the bridge makes it appear that the grid was always intended to be placed there, but the arrangement also simply allows for a perpendicular T-junction from the bridgehead, perhaps the sort of regularity that the bridge-and-road engineers would have preferred. The road builders were envisioning vast numbers of people and goods travelling across the bridge from the ports in Kent via Watling Street and the south via Stane Street on their way to the new military frontier in the west and the capital at Colonia Claudia; this easternmost Thames crossing made a fast land route to the new *colonia* at Colonia Claudia as short as possible (see [page 15](#)). The settlers chose this location for the T-junction with the bridge-road and the easy Channel access. They did not choose it for the defensive qualities of the hill, as many have often thought. The crest of Cornhill was not of great importance to the early settlers, for defence or any other reason, and they focused the main settlement on the slope of the hill between the main road and waterfront, leaving the highest part of Cornhill empty for a cremation cemetery (see [page 71](#)). Nor did they choose the location because it was a natural port; they built their new artificial port with the revetments, jetties, and beaching platforms on either side of the important bridge ([Figures 14 and 34](#)). Only the main roads pre-date the buildings, while the core Cornhill grid and secondary streets elsewhere were constructed later, more slowly; the process of pre-Boudican road building did not happen overnight, but rather involved changing ideas and necessitated the destruction of structures and earlier roads (see [page 96](#)).

There is no structural or artefact evidence to support the theory of a Claudian army camp or the military supply base that has been imagined either from the position of poorly dated pre-Flavian V-shaped ditches that lay in open, unoccupied land or from other V-shaped and

so-called ankle-breaker-profile ditches near Aldgate and on the northern eyot south of the Thames. These interpretations are problematised by the evidence that such ditches could be constructed by the army for the express purpose of creating a civilian settlement, as at Waldgirmes. This more nuanced relationship between the army and civilian settlement is not in evidence in early Londinium, however. The process of mapping the large ditches against the topography of Roman London has demonstrated that the stratigraphically earliest ditches were physically related to the roads and streams and were associated with drainage, quarrying, and road-construction (see [pages 17, 37, 44–5, 51, 68–70, and 93–4](#); also Wallace 2013).

If Londinium were founded as a civilian centre with aid from the military, we might expect a settlement similar to Waldgirmes. There, the builders employed both military features, especially the defensive ditches surrounding the site, and civilian building-construction types. Yet at Waldgirmes strong ties to local trade networks are among the most indicative features of a local population (and therefore a non-military settlement site) – the opposite of the artefact characteristics in Londinium. Or perhaps it might have resembled the (quite different) newly constructed aspects of Colonia Claudia, which included a large masonry temple and the 5-metre-wide, filled military defensive ditches from the fortress period. However, the lack of specifically military features in Londinium, the diversity of construction types and building sizes, the lack of public buildings such as a temple or baths, as well as the relatively small amount of military artefacts from pre-Boudican contexts, seem to rule out the possibility of direct military assistance or occupation.

If, however, the town were founded by the imperial authority as an official supply depot or entrepôt, we might expect a fully realised grid of streets or a main street with property boundary divisions such as can be found at Oppidum Batavorum and Oppidum Ubiorum. Additionally, we would expect forum buildings, store-houses such as those found at Rutupiae, and perhaps a monumental structure of some kind. Regular property divisions or a regularity of construction methods and building sizes would also be expected, at least along the

main roads and at the main intersection. The port would be equipped with quays and wharves with nearby warehouses. Objects that might provide supporting evidence for such a model would be procuratorial tile stamps and other epigraphic evidence, in addition to an official status, such as *colonia* or *municipium*.

None of these features is found in Londinium until the later Neronian/Flavian periods, however. Procuratorial tile stamps (Betts 1995) and the tombstone of Classicianus (RIB 12: Collingwood and Wright 1965: 5), the *procurator* sent to Britannia after the Boudican Revolt, suggest that it may have been raised to an official status as early as the late first century, perhaps as the administrative capital in a transformation associated with the dramatic post-Boudican changes: the Neronian and later quays (Brigham and Watson forthcoming; Milne 1985), the forum basilica (Marsden 1987), the Plantation Place fort (Dunwoodie forthcoming), and the significantly expanded street grid (Rowsome 2008). The issue here is that none of these features is found in the pre-Boudican deposits. Back-projection onto the pre-Boudican period has often confused this issue, and is a key reason why the current study is so significant. By drawing together all available information related only to the pre-Boudican period, it is clear that the earliest settlement must be explained and understood with a different model.

Planning and aspiration

The most significant aspects of the town planning are the orthogonality of the core street grid and building alignments and the exclusion of burials to areas outside the settlement (see [pages 59 and 93](#)). Also, the waterfront structures and the monumental open proto-forum area demonstrate the intentionality of town building and the early importance of water-borne trade. Were these features simply a reflection of what the inhabitants thought a Roman town ought to be? A design for Roman living (Woolf 2000: 123)? Or was it perhaps a way of controlling movement and asserting control over the population (Hingley 1997)? Following the analysis here, it seems that a ‘model for Roman living’ is most likely.

The number of other examples with which the town planners were familiar and what models they might have been hoping to emulate seem few, however (see [page 93](#)). In comparison to the plans and sizes of other planned towns pre-dating the mid-first century, the layout was small in scope, tentative, and piecemeal, and does not suggest that a well-developed and internalised ideology was used to coerce a certain manner of living onto an ignorant population. Instead, it seems to reflect a group attempting to create and reflect a new identity and a new urban and Roman-style settlement without strong leadership or guidance on exactly how to do so. They started small and slowly, which may suggest a weak and diffuse power structure as well as paucity of funds to give over to public construction projects. It appears that most people were making individual decisions regarding the construction of their houses, shops, and workshops, probably based on the labour and materials they preferred and could afford. The possibly public buildings exist within a Romano-British repertoire, but the major monuments we might expect in a 'new town' are totally lacking (temple, forum buildings, basilica, baths, etc.).

Individuals were responsible for the construction of their own buildings, and no two structures are the same; there was a common pattern of hiring a skilled carpenter to build the main frame of a building and filling in the internal partitions using vernacular methods. Shared yards were common, and probably indicate communal ownership or tenancy. Other indications of the requirement that individuals organise their own arrangements are in the diverse nature of roadside drains and pavements between the road and structures. Fresh-water acquisition and waste-water disposal were also arranged on a building-by-building basis with no authority organising supply and drainage. Some inhabitants, however, lost their plots to the construction of the grid and public buildings, which shows that the decisions of individuals could be overruled by the central authority.

Whatever authority or group felt that the *insulae* were important in the planned core did not exert influence west of the Walbrook or in Southwark, where new roads were constructed as and when needed at angles focused

on the crossing points and leading from main streets off to yard and work areas. Perhaps the group in control was demonstrating its power by specifically excluding those areas from the overall planning structure. The group who controlled the planning and construction of the grid of streets were almost certainly those who built the proto-forum, and perhaps those who constructed the large buildings adjacent to it. Demonstrations of elite wealth and power are not apparent in the domestic architecture, however. The population may also have been unused to such display, could not afford it, or were not committed to the value systems within which it functioned. The total lack of mosaics, marble, *atria*, peristyles, large reception rooms, and other high-status structured spaces and decorative embellishments indicates that the value system in which those things functioned as symbolic and meaningful elements of communicating one's status and identity were, perhaps, unimportant or unknown – not what one would expect of a governor, general, or powerful Roman citizens. Alternatively, these features could have been considered secondary in importance to public structures in the local framework of civic munificence and elite erudition, as is the pattern seen in Augustan new towns in Gaul, the creation of which began nearly a century before Londinium. Londinium was halted in its process of development by the Revolt, and perhaps the inhabitants had plans for baths, temples, a basilica, and other civic structures to be followed by elaborate *domūs* that they were prevented from carrying out because of the sudden burning of the town.

The power structure of the imperial authority in the provinces was highly decentralised and relied on local groups to administer their own lands, including new urban centres (Millet 1990: 3–8). Variation of building types and the lack of defined plots, along with the possible delay in the construction of the street grid and the population's unwillingness to accept it (or unawareness of it?) by constructing buildings that prevented its function within the planned core is suggestive of a diffuse civic power structure. With a highly centralised civic authority we would expect there to be more rapid

planning and construction, probably on a larger scale, building plots regulated and laid out, a pattern in the buildings, perhaps only along the main roads, and that people might not have been able to build their own structures in the path of future or existing roads. The diversity and inconsistency is more suggestive of self-governing people making their own decisions within well-understood cultural constraints.

THE PEOPLE OF EARLY LONDINIUM

There is little, if any, evidence from the pre-Boudican period that the imperial administration or the military were responsible for the foundation and construction of the new town, although the roads and bridge were probably in place as part of a strategic plan for changes in the south-east around AD 49. The model whereby local leaders moved *oppida* in Gaul down to the plains to be closer to existing communication routes, built by the army and administrative authorities, provides a way to think about early Londinium. Such new towns were founded as grid-planned urban centres with monumental public buildings, planned and directed by the leading groups among local populations, such as at Augustodunum – these settlements are the closest parallels that can be found for Londinium. Other towns named after local groups were created as artificial centres by the imperial administration and had very weak ties to the indigenous people: the Augustan/Tiberian town at Oppidum Ubiorum was created years after the Ubii had been forced to relocate to new lands and settled in scattered settlements around 30 BC; the population of the town was composed only partly of indigenous people in addition to Italian and northern Gallic civilians and veterans from northern Italy and the Alpine regions (Carroll 2003: 27–8). Similarly, the population at Oppidum Batavorum contained few Batavians, such that the town suffered destruction during the native uprising of the Batavian Revolt of AD 69/70 (van Enckevort and Thijssen 2003: 64; Tacitus, *Histories* 5.19). These both bear strong similarities to early Londinium.

Yet there is no nearby ancient populace to account for such a move, and no direct parallel of a population centre in LPRIA Britain for the *oppida* found in contemporaneous Gaul; such a model would, perhaps, be more accurately applied to Verulamium and Durovernum in Britain where Iron Age groups had been living in stratified settlements within relatively densely occupied regions before the construction of the towns. To speak of broken or continued traditions from the Iron Age, therefore, would be inappropriate, as every member of the community was, in some respect, beginning a new life in Londinium. Although indigenous people uprooted and re-established their lives here, it is impossible to be sure where they came from, or whether warfare and land dispossession played a role in their decisions to begin again. Certainly it is tempting to think of the indigenous people of the town as ambitiously reinventing themselves in a location with opportunities for social mobility and the improvement of economic status. Indeed, the occupants of the Cornhill core settlement could have easily included both indigenous British and rural people from Gaul or Germany moving to the new urban settlement and creating new identities as Roman town-dwellers.

The evidence presented in [Chapter 5](#) suggests that much of the population (especially on Cornhill) arrived fully integrated into the use of material culture typical of Continental Roman towns, such as those in nearby Gaul, including timber-framed buildings, intensive coin use, illumination with oil lamps, writing both with ink and nib and styli on wax tablets, adornment and modification of the body in non-indigenous ways, and culinary practices using mortaria, glass vessels, and diversified imported table wares. Furthermore, the proportion of imported ceramics in the pre-Boudican period is higher than in any other (Davies et al. 1994), suggesting that the population was poorly integrated into the local economic network and highly reliant on Continental goods. That nearly all imports, with the major exception of amphora-borne products from Spain, derived from Gaul indicates that the strongest trade contacts in this early period were with Gaul. The widespread use of mortaria is also highly indicative of a specifically Gallic cultural package. The use

of timber as a construction material is largely a factor of the lack of stone in the area of Londinium, but it is also a cultural choice, one that is also found in north-western Gaul, such as at Samarobriva (Bayard and Massy 1983). The later Tabard Square inscription (Corcoran et al. 2002; Dondin-Peyre and Lorient 2008) supports this suggestion and indicates that there was, at least in that later period, a wealthy community of Gallic traders, probably from Durocortorum. An immigrant community familiar with Roman town construction who brought with them skilled labourers and strong trade contacts with Gaul, Germany, and Spain were somehow given permission to construct a new town at the site of Londinium.

Indigenous buildings and metal-working are only apparent in peripheral locations outside the main planned area, evidence that some people were actively separating themselves and communicating their 'otherness' to those people living in the Cornhill core area. The population was, therefore, diverse and variously composed of citizen elites, perhaps from Gaul; craftsmen, some local and others from Germania and elsewhere; indigenous labourers; and Continental merchants and traders with strong ties to Gaul, Germania, and Spain. Tacitus' description (*Annals* 14.33) of a town of merchants was almost certainly an exaggerated representation of Londinium around AD 100, based on the economy of the town as a major importation centre.

That the core settlement was somehow insufficient, unavailable, or undesirable to some settlers, who instead chose to (or were required to) live along Cornhill Road 2, on Ludgate Hill, or in Southwark, is also significant. That the populations in the different areas were separate communities from the earliest period is evident in the varied characters of the structural remains, patterns of rubbish deposition, and diverse attitudes to urban living. The foundation story of those areas is intricately related to the Cornhill core, however. These communities were probably composed of non-citizens, at least in the earliest period, who came to the new town at Londinium to look for opportunities for social and economic advancement. Although there are clear structural differences, primarily that buildings outside the core area were smaller and less

frequently timber framed, they appear to have succeeded. The suggestion that Ludgate Hill and the eyots south of the Thames were 'suburbs' that developed because of population pressure and lack of space in the Cornhill core is not viable in the case of Ludgate Hill. Instead, the people who constructed their homes and workshops west of the Walbrook appear to have actively done so from the first, probably entirely contemporaneously with the ongoing construction of the partially occupied Cornhill core. It is likely that sufficient space existed for new arrivals, but that the people living on Ludgate Hill were either not legally allowed to, socially excluded from, or preferred not to live in the core settlement for cultural reasons. At least part of the early Ludgate Hill population was composed of indigenous people, demonstrated primarily by the round houses and post-and-stake structures in that area. A model by which they might have been excluded from the core is if the land were reserved for Roman citizens, which could support the possibility that the settlers had acquired some kind of permission from the *procurator* to found the settlement for Roman citizens from the Continent as a *conventus civium Romanorum* (Millett 1994: 434, 1996: 35; Wilkes 1996).

Based on the structural and artefact evidence, the strongest argument can be made for a town founded by Romano-Gallic citizens with official permission from the *procurator*, possibly arranged before/during the bridge/road construction, probably drawn from *ager publicus*, driven by a high-status social group in the fashion of a Romano-Gallic 'new town'. Arriving after the main roads were finished, they began to clear up the mess of quarry pits, ditches, etc. and divvy up the land without the aid of professional surveyors and town planners. They undertook this work in a somewhat tentative and piecemeal fashion, and probably had not yet completed it ten or so years later. The early plans did not keep up with an explosion in population, the attraction of indigenous individuals and families, and intensive use of the waterfront areas for trade and transport. This model of foundation is different to anything we know in the Roman Empire. Yet it has long been acknowledged that Londinium was a unique type of Roman town.

AFTERWORD

Success in building on this study will undoubtedly derive from botanical data, animal-bone data, and pottery data. Foodways are a key component of social and economic status, as well as ethnicity, and could identify the different groups present in Londinium and illuminate the diversity between the three zones of settlement. Much analysis, not included in this project, has already been undertaken by specialists, and could be merged with this structural framework; elsewhere it will be necessary to return to the archive boxes, and catalogue, weigh, and count thousands of sherds, seeds, and bone fragments. An archaeology of foodways in pre-Boudican Londinium could be based on such a robust dataset, and hopefully the collaboration of specialists in the future will bring this research to fruition.

Direct comparison between sites could be possible if volumes of excavated sediment were calculated and artefact densities were used. It is easiest, and most accurate, to record volumes of sediment as contexts are excavated in

the field, but archive plan drawings and elevation data can also be used to reconstruct approximate volumes. Such calculations and analysis would make direct statistical comparisons valid and greatly improve the interpretative capabilities of artefact assemblages.

A more comprehensive understanding of the early post-invasion period in the south-east of Britain would provide the context within which this detailed analysis of Londinium could be understood. The wealth of data from archaeological excavations in the region is impressive, not only in the form of major research campaigns, but also from those investigations conducted by contract firms and other organisations over the past twenty-four years since the inception of PPG-16. However, no synthesis of these data has been undertaken. Focused, contextual analysis of the pre-Flavian urban and rural areas of south-eastern Britain, taking the wealth of both published and unpublished data into account, is required to further this agenda.

APPENDIX: GAZETEER OF SITES

The organisations that excavated the sites are:

AOC: AOC Archaeology Group, Twickenham

DGLA: Department of Greater London Archaeology, London

DGLA (S&L): Department of Greater London Archaeology with Southwark and Lambeth Archaeology, London

DUA: Department of Urban Archaeology, Museum of London

GM: Guildhall Museum, London

MOLAS: Museum of London Archaeology Service, Museum of London

PCA: Pre-Construct Archaeology, Brockley, London

SAEC: Southwark Archaeological Excavation Committee

SLAEC: Southwark and Lambeth Archaeological Excavation Committee

The sites are numbered alphabetically in three groups, first Ludgate Hill (1–31), followed by Cornhill (32–88) and Southwark (89–118). The remaining twelve sites (S1–S12) are those where burnt Samian of Claudian/Neronian date was found, but are otherwise not included in the analysis.

Format example:

Site number

Site code (not always available)

Site name (not always available)

Address

Nation grid reference

Organisation, year, type of site

Publications associated (can be several lines)

Artefact data linked (can be several lines)

1

BOL94

Bolsa House

76–80 Cheapside, EC2, EC4

TQ32528112

MOLAS, 1994, Evaluation and Excavation Hill and Rowsome [2011a](#)

Context-level data: thirty-six contexts listed

Registered Finds

Roman pottery unquantified

2

BUC87

Docklands Light Railway Shaft

Bucklersbury, 3 Queen Victoria Street (near), EC4

TQ3259081070

DUA, 1987, Excavation

Hill and Rowsome [2011a](#)

Context-level data: 150 contexts listed

Registered Finds

Roman pottery unquantified

Glass

Coins

3

CAO96

Gateway House

25 Cannon Street

TQ32218107

MOLAS, 1996, Excavation

Elsden [2002](#)

Context-level data: 170 contexts listed

Registered Finds

Roman pottery sherds quantified

Glass

Building Material

GAZETEER OF SITES

Animal bone, unquantified	12–16 Watling Street, 31–37 Cannon Street, EC4
Coins	TQ3230481074
	Guildhall Museum, 1954, Watching Brief
	Merrifield 1965 Gazetteer: 78
	Millett 1983 Gazetteer: L34
4	
CED89	
64–66 Cheapside, EC2	
TQ3244081140	8
DUA, 1989, Watching Brief and Excavation	
Westman 1992	GM217
	7–8 King Street (formerly 3–8 King Street), EC2
	TQ3248581238
	GM, 1926, Watching Brief
	Merrifield 1965 Gazetteer: 50
	Millett 1983 Gazetteer: L17
	Dunning 1945
5	
CID90	
Cheapside	
72–80 Cheapside, 83–84 Queen Street, 9–12 Pancras Lane, EC2 and EC4	
TQ3249081120	9
DUA, 1990, Watching Brief and Excavation	
Hill and Woodger 1999, Hill and Rowsome 2011a	GM34
Context-level data: 265 contexts listed	67–69 Cheapside, 1–5 Queen Street, EC2
Registered Finds	TQ3246181129
Roman pottery sherds, weights, and EVEs partially quantified	GM, 1937, Watching Brief
	Merrifield 1965 Gazetteer: 64
Glass	
Coins	
	10
6	
GM136	GM36
Paternoster Square Development	1–2 Bucklersbury, 76–80 Cheapside, 9–12 Pancras Lane (including site of St Pancras church), EC2
10–14 Newgate Street, 61–70 St Paul’s Churchyard, Paternoster Row, Panyer Alley, Ave Maria Lane, Cannon Alley, EC4	TQ3252581127
TQ3205381298	GM, 1963, Watching Brief
Guildhall Museum, 1961, Watching Brief	Ludgate Hill WR1
Merrifield 1965 Gazetteer: 3–6, 9–17, 20	Merrifield 1965 Gazetteer: 191
	Millett 1983 Gazetteer: L5
	11
7	
GM213	GM38
Watling House	137–144 Cheapside, EC2
	TQ3221481234
	GM, 1957, Watching Brief

12	GM63 St Vedast House 150 Cheapside, Foster Lane, EC2 TQ3126981256 GM, 1962, Watching Brief Merrifield 1965 Gazetteer: 36	Lyon 2007 Context-level data: 98 contexts listed Registered Finds Roman pottery sherds quantified Glass Building Material
13	GPO75 General Post Office 81 Newgate Street, EC1 TQ3205081350 DUA, 1975, Excavation Perring et al. 1991, Roskams 1982 Context-level data: 869 contexts listed Registered Finds Roman pottery weights and EVEs partially quantified Glass Coins	16 KNG85 King Street 36–37 King Street, EC2 TQ3245581206 DUA, 1985, Excavation Hill and Rowsome 2011a, Shepherd 1987 Context-level data: 207 contexts listed Registered Finds Roman pottery unquantified
14	IRO80 Ironmonger Lane 24–25 Ironmonger Lane, 9–12 King Street, EC2 TQ3250081220 DUA, 1980, Watching Brief and Excavation Perring et al. 1991, Norton 1981 Context-level data: 28 contexts listed Pottery spot dated only Building Material	17 MLK76 Milk Street 1–6 Milk Street, 5–6 Russia Row, EC2 TQ3238081270 DUA, 1976, Excavation Roskams et al. 1986, Perring et al. 1991 Context-level data: 23 contexts listed Pottery spot dated only
15	KEW98 Merrill Lynch Financial Centre 102–105 Newgate Street, EC1 TQ31948137 MOLAS, 1998, Watching Brief and Excavation	18 National Safe Deposit Site 1872–1873 Bucklersbury RCHM, 1872, Watching Brief Merrifield 1965 Gazetteer: 196
		19 NEG98 Svenska House and Craythorne House 3–9 Newgate Street, EC1 TQ31868136

MOLAS, 1998, Evaluation and Excavation

Pitt [2006](#)

Context-level data: 78 contexts listed

Registered Finds

Roman pottery sherds quantified

Glass

Coins

20

NGT00

Newgate Triangle

Newgate Street, Paternoster Square, Paternoster Row,
EC1, EC4

TQ3198881304

MOLAS, 2000, Watching Brief and Excavation

Watson and Heard [2006](#)

Context-level data: 1,516 contexts listed

Registered Finds

Roman pottery sherds and weights quantified

Glass

Building Material

Coins

21

OBL97

Britannia House

16–18 Old Bailey, EC4

TQ31738138

MOLAS, 1997, Evaluation and Excavation

Pitt [2006](#)

Context-level data: 18 contexts listed

Registered Finds

Roman pottery sherds quantified

Glass

Building Material

Animal bone, unquantified

22

ONE94

One Poultry

1–19 Poultry, 2–38 Queen Victoria Street, 3–9, 35–40

Bucklersbury, Pancras Lane, Sise Lane, EC2, EC4

TQ32588110

MOLAS, 1994, Excavation

Hill and Rowsome [2011a](#)

Context-level data: 1,517 contexts listed

Registered Finds

Roman pottery fully quantified

Glass

Building Material

Animal bone, unquantified

Coins

23

PNS01

Paternoster Row, Sheldon House (former), Charterhouse

Bank Building

1 Paternoster Row, EC4

TQ3207281228

MOLAS, 2001, Excavation

Watson and Heard [2006](#)

Context-level data: 793 contexts listed

Registered Finds

Roman pottery sherds and weights quantified

Glass

Building Material

Coins

24

POM79

GPO Middle Area

Newgate Street, EC1

TQ3206081380

DUA, 1979, Excavation

Richardson [1980](#)

Context-level data: 20 contexts listed

25

POU05

36–39 Poultry, 1–5 Old Jewry, EC2

TQ3258081160	29	
MOLAS, 2005, Evaluation and Excavation		Warwick Square
Maloney and Holroyd 2007		TQ3198881304
		Alfred Tylor, 1881, Excavation
	26	Tylor 1884
SLO82		
Beaver House	30	
Sugar Loaf Court, 71 Queen Victoria Street, Little Trinity Lane, Great Trinity Lane, Garlick Hill (bounded by), EC4		WAT78
TQ3234080867		Watling Court
DUA, 1982, Excavation		39–53 Cannon Street, 11–14 Bow Lane
Barker 1989		TQ3235581045
Context-level data: 193 contexts listed		DUA, 1978, Excavation
Registered Finds		Perring 1984, Perring et al. 1991
Roman pottery weights and EVEs quantified		Context-level data: 161 contexts listed
Glass		Registered Finds
Building Material		Roman pottery weights and EVEs quantified
	27	Glass
		Coins
		31
SLY00		WOW79
Juxon House, Paternoster Square		Woolworths
St Paul's Churchyard, Ludgate Hill, Ave Maria Lane, EC4		128–133 Cheapside, EC2
TQ31938118		TQ3230081240
MOLAS, 2000, Evaluation and Excavation		DUA, 1979, Watching Brief
Watson and Heard 2006		Context-level data: 9 contexts listed
Context-level data: 46 contexts listed		
Roman pottery sherds and weights quantified	32	
		3–6 King William Street
	28	TQ32758098
		Lambert, 1919–21, Watching Brief
St Mary-le-Bow		Millett 1983 Gazetteer: L18
Cheapside, EC2		Lambert 1921
TQ3239081140		
Sir Christopher Wren, 1671–3		
Watching Brief	33	
Merrifield 1965 Gazetteer: 62		8–13 King William Street
Wren 1750		TQ32908093

Lambert, 1919–21, Watching Brief
 Millett 1983 Gazetteer: L19
 Lambert 1921

34

14–20 King William Street
 14–20 King William Street EC4
 Lambert, 1919–21, Watching Brief
 Millett 1983 Gazetteer: L21
 Lambert 1921

35

9–12 George Yard, Lombard Street
 TQ32958103
 Dunning, 1930, Watching Brief
 Millett 1983 Gazetteer: L26
 Dunning 1945

36

ACE83
 77–79 Gracechurch Street, EC3
 TQ3302081015
 DUA, 1983, Excavation
 Marsden 1987

37

AUT01
 Minster House
 12 Arthur Street, EC4
 TQ3277080760
 MOLAS, 2001, Evaluation, Excavation, Watching Brief
 Swift 2008

38

BIR83
 Birchin Lane
 18 Birchin Lane, 62 Lombard Street, EC3

TQ3288581037
 DUA, 1983, Watching Brief
 Miller 1983
 Context-level data: 114 contexts listed
 Registered Finds
 Roman pottery weights and EVEs quantified
 Building Material

39

BLE98
 Bush Lane House
 80 Cannon Street, EC4
 TQ32658086
 PCA, 1998, Watching Brief
 LAARC Online Catalogue

40

BLH73
 Bush Lane House
 80 Cannon Street, EC4
 TQ3267080870
 DUA, 1972, Excavation
 Millett 1983 Gazetteer: L6
 Chapman and Johnson 1973

41

BOP82
 Bishopsgate
 28–34 Bishopsgate, 2–3 Crosby Square, 2–3 Great St
 Helen's, EC2
 TQ3312081260
 DUA, 1982, Excavation
 Evans 1987
 Context-level data: 112 contexts listed
 Registered Finds
 Pottery spot dated only
 Building Material

42	BRD88 Docklands Light Railway Shaft 80 Lombard Street (opposite), Guild Church of St Mary Woolnoth, EC3 TQ3274081070 DUA, 1988, Excavation Context-level data: 13 contexts listed Roman pottery fully quantified	29–32 Clement’s Lane, 33–36 Lombard Street, EC4 TQ3289080945 DUA, 1981, Watching Brief and Excavation Evans 1989 (not present in archive) Context-level data: 202 contexts listed
43	BRL87 Birchin Lane 19–25 Birchin Lane, Bengal Court, 1–3 Castle Court, EC3 TQ3289581060 DUA, 1987, Excavation Shepherd and Westman 1990 Context-level data: 81 contexts listed Registered Finds Pottery spot dated only Glass Building Material	46 CUL83 Cullum Street 154–156 Fenchurch Street, 15–16 Cullum Street, EC3 TQ3311580960 DUA, 1983, Watching Brief Reid 1983 Context-level data: 10 contexts listed Pottery spot dated only
44	CASS72 Aldgate, Sir John Cass School 20–30 Aldgate, E1 TQ3352081160 GM, 1972, Excavation Millett 1983 Gazetteer: L1 Chapman and Johnson 1973 Context-level data: 21 contexts listed Registered Finds Roman pottery sherds quantified Glass	47 EST83 Eastcheap 23–29 Eastcheap, 14–15 Philpot Lane, EC3 TQ3305580840 DUA, 1983, Excavation Riviere 1984 Context-level data: 221 contexts listed Registered Finds Pottery spot dated only Glass Building Material Coins
45	CLE81 Clement’s Lane	48 ETA89 7–11 Bishopsgate 7–11 Bishopsgate, EC2 TQ3302081190 DUA, MOLAS, 1989, Evaluation and Excavation Sankey 2002

49		Registered Finds
FEH95		Roman pottery sherds and weights quantified
Fenchurch Street		Glass
168 Fenchurch Street, EC3		Building Material
TQ33048097		Animal bone, unquantified
MOLAS, 1995, Evaluation and Excavation		Coins
Dunwoodie 2004		
Context-level data: 814 contexts listed	52	
Registered Finds		FMO85
Roman pottery sherds quantified; weights and EVEs partially quantified		Fish Street Hill
Glass		37–40 Fish Street Hill, 16–20 Monument Street, EC3
Building Material		TQ3292080730
Coins		DUA, 1985, Excavation
		Bateman 1986; Bateman and Milne 1983, DUA n.d.
		Context-level data: 20 contexts listed
		Pottery spot dated only
50		
FEN83	53	
Fenchurch Street		FNC88
5–12 Fenchurch Street, 1 Philpot Lane, EC3		Fenchurch Street
TQ3303080920		88–93 Fenchurch Street, 5–7 Carlisle Avenue, EC3
DUA, 1983, Excavation		TQ3351081080
Hammer 1987a and 1987b, Williams forthcoming		DUA, 1988, Excavation
Context-level data: 1,036 contexts listed		Dunlop 1990, Williams forthcoming
Registered Finds		Context-level data: 132 contexts listed
Roman pottery weights and EVEs partially quantified		Registered Finds
Glass		Pottery spot dated only
Building Material		
Coins	54	
		FNE01
51		Vitro
FER97		60–63 Fenchurch Street, EC3
Plantation House, Chesterfield House (will be Plantation Place)		TQ33368098
26–38 Fenchurch Street, 1–16 Mincing Lane, 23 Rood Lane, 53 Great Tower Street, EC3		Wessex Archaeology, 2001, Evaluation and Excavation
TQ33188087		Birbeck and Schuster 2009
MOLAS, 1997, Evaluation, Watching Brief, and Excavation	55	
Dunwoodie forthcoming		FSE76
Context-level data: 1,974 contexts listed		160–162 Fenchurch Street, 22–3 Lime Street, EC3

TQ3305580965	Merrifield 1965 Gazetteer: 283
DUA, 1976, Excavation	Millett 1983 Gazetteer: L28, L7
Millett 1983 Gazetteer: L12	
Boddington 1978, Marsden 1987, Williams forthcoming	
Context-level data: 91 contexts listed	59
Registered Finds	GM60
Pottery spot dated only	112–114 Fenchurch Street, 17–18 Billiter Street, EC3
Glass	TQ3333081020
Building Material	GM, Quentin Waddington, 1925, Watching Brief
Coins	
	60
56	
FST85	GM69
Landmark House	Midland Bank
94–97 Fenchurch Street, 69 Leadenhall Street, EC3	55–60 Gracechurch Street (site of St Benet
TQ3345081100	Gracechurch), EC3
DUA, 1985, Excavation	TQ3297880905
Riviere 1986, Williams forthcoming	GM, 1959, Watching Brief
Context-level data: 551 contexts listed	Merrifield 1965 Gazetteer: 293
Registered Finds	Millett 1983 Gazetteer: L15
Pottery spot dated only	
Glass	61
Building Material	
Coins	GM95
	St Dionis Backchurch
57	22–23 Lime Street, 160–170 Fenchurch Street (Barclay's
	Bank) (site of St Dionis Backchurch church), EC3
GM18	TQ3305580960
19–21 Birchin Lane	GM, 1969, Watching Brief
TQ3290081050	Marsden 1987
(Observation by Mr F. Cottrill), 1935, Watching Brief	
Merrifield 1965 Gazetteer: 225	62
Millett 1983 Gazetteer: L4, Dunning 1945	
58	
GM33	GM99
Nicholas Lane (site of)	Lombard Street
143–147 Cannon Street, EC4	30–32 Lombard Street, EC2
TQ3278580885	TQ3294780962
GM, 1961, Watching Brief	GM, 1962, Watching Brief
	Merrifield 1965 Gazetteer: 290
	Millett 1983 Gazetteer: L24
	Marsden 1987

63

GM100
Barclay's Bank
54–58 Lombard Street, EC3
TQ3292080980
GM, 1960, Watching Brief
Merrifield 1965 Gazetteer: 245
Millett 1983 Gazetteer: L25
Marsden 1987

64

GM101
54 Lombard Street, EC3 (site of All Hallows, Lombard Street Church)
TQ3297080990
GM, 1939, 1957, Watching Brief
Marsden 1980 cites a manuscript by A. Oswald in the Museum of London

65

GM158
St Swithin's House
30–37 Walbrook, EC4
TQ3263281005
GM, 1949, Watching Brief
Merrifield 1965 Gazetteer: 38, fig. 3
Millett 1983 Gazetteer: L33

66

GM248
Regis House
King William Street, Fish Street Hill, EC3
TQ3288580725
GM, 1930, Watching Brief

67

GM297
St Dionis Backchurch
22 Lime Street, 168–170 Fenchurch Street (Barclay's Bank) (site of St Dionis Backchurch), EC3
TQ3303080960
GM, 1968, Watching Brief
Millett 1983 Gazetteer: L13
Marsden 1987, Forum Site
Marsden 1987, Philp et al. 1977
Context-level data: 35 contexts listed
Registered Finds
Roman pottery sherds quantified
Coins

68

GST77
GPO Tunnel
Gracechurch Street, EC3
TQ3301081040
DUA, 1977, Watching Brief
Marsden 1987

69

ILA79
Miles Lane
Miles Lane, 132–137 Upper Thames Street, 15–17 Arthur Street, 33–38 King William Street, EC4
TQ3280080740
DUA, 1979, Excavation
Milne 1985

70

IME83
Lime Street
27–30 Lime Street, EC3
TQ3309880977
DUA, 1983, Excavation

Williams forthcoming, Williams and Cocroft 1986

Context-level data: 20 contexts listed

Pottery spot dated only

71

KWS94

Regis House and Ridgeway House

39, 40–46 King William Street, 4–12 Monument Street,

17–28 Fish Street Hill, the Canterbury Arms, EC4

TQ32888074

MOLAS, 1994, Evaluation and Excavation

Brigham and Watson forthcoming

Context-level data: 189 contexts listed

Registered Finds

Roman pottery sherds quantified

Glass

Building Material

Animal bone, unquantified

Coins

72

LCT84

Leadenhall Court

2–6 Leadenhall Street, 91–100 Gracechurch Street, 4, 6, 8,

10, 12 Whittington Avenue, 1, 2 Leadenhall Avenue,
the London Metal Exchange, EC3

TQ3306081090

DUA, 1984, Excavation

Brigham et al. 1990, Marsden 1987, Milne 1990, Milne
and Wardle 1993

Context-level data: 230 contexts listed

Registered Finds

Pottery spot dated only

Glass

Building Material

Coins

73

LFE87

Leadenhall Street/Fenchurch Street

65–68 Leadenhall Street, 98 Fenchurch Street, EC3

TQ3343081100

DUA, 1987, Evaluation and Excavation

Brown 1988

Context-level data: 146 contexts listed

Registered Finds

Pottery spot dated only

Glass

Building Material

74

LIB82

Cannon Street

119–121 Cannon Street, 3 Abchurch Yard, EC4

TQ3273080925

DUA, 1982, Excavation

Rowsome 1984, Williams forthcoming

Context-level data: 46 contexts listed

Registered Finds

Building Material

75

LIM83

Lime Street

25–26 Lime Street, EC3

TQ3309580965

DUA, 1983, Excavation

Williams 1986, forthcoming

Context-level data: 120 contexts listed

Registered Finds

Roman pottery weights and EVEs quantified

Glass

Building Material

76

LME01

Lime Street

21 Lime Street, EC3

TQ3306080980

MOLAS, 2001, Evaluation and Excavation
LAARC Online Catalogue

77

LYD88

Cannon Street Station (north)
Cannon Street, Dowgate Hill, Bush Lane, EC4
TQ3260080830
DUA, 1988, Excavation
Hill 1989

78

MFI87

Docklands Light Railway
Monument Street, 17 Fish Street Hill, EC3 or EC4
TQ3290080790
DUA, 1987, Excavation
Burch and Rowsome 1992, Williams forthcoming
Context-level data: 24 contexts listed

79

ORG86

St Martin Orgar Churchyard
24–32 King William Street, EC4
TQ3282080820
DUA, 1986, Watching Brief and Excavation
Power 1990
Context-level data: 201 contexts listed
Registered Finds
Roman pottery weights and EVEs quantified
Glass
Building Material

80

PDN81

Pudding Lane

11–11A Pudding Lane (Nomura House), 121–127 Lower
Thames Street, 33–36 Fish Street Hill, 22–26 Monu-
ment Street, 7–11A King's Head

TQ3292580715

DUA, 1981, Excavation

Brigham 1990, Milne 1985

81

PEN79

Peninsular House

112–116 Lower Thames Street, EC3

TQ3297080705

DUA, 1979, Excavation

Bateman and Milne 1983, Brigham 1990, Milne 1985

No data: 6 contexts listed

82

PUB80

The George Public House

86 Fenchurch Street, EC3

TQ3349081093

DUA, 1980, Excavation

Upton 1981

Context-level data: 171 contexts listed

Registered Finds

Building Material

83

SL75a

St Swithin's Lane

10 St Swithin's Lane, EC4

TQ3270480980

DUA, 1975, Watching Brief

Millett 1983 Gazetteer: L32

84

SSL84

St Swithin's Lane

18, 19, 21–23 St Swithin's Lane, 13 Sherbourne Lane, 115–117 Cannon Street, EC4 TQ3271080940 DUA, 1984, Excavation Steedman 1985, Williams forthcoming Context-level data: 114 contexts listed Registered Finds Pottery spot dated only Glass Building Material	18, 19, 21–23 St Swithin's Lane, 113–117 Cannon Street, 13 Sherbourne Lane, EC4 TQ3270080910 DUA, 1983, Excavation Steedman and Nally 1987, Williams forthcoming Context-level data: 51 contexts listed
85	89
St Swithin's Lane, King William Street TQ32748103 Charles Roach Smith, private museum transferred to British Museum, pre-1856, Watching Brief Coins	64BHS74 64–70 Borough High Street TQ32568006 SAEC, 1974, Excavation Graham and Hinton 1988 Context-level data: 6 contexts listed Registered Finds Roman pottery sherds and weights quantified Glass
86	90
SUF94 Suffolk House 5 Laurence Pountney Hill, 154–156 Upper Thames Street, EC4 TQ32718077 MOLAS, 1994, Watching Brief and Excavation Brigham and Woodger 2001	84BHS74 84–86 Borough High Street, SE1 TQ32538002 SAEC, 1974, Excavation Hinton 1988
87	91
WAO06 The Walbrook: St Swithin's House, Walbrook House and Granite House 30–37 Walbrook, 97–101 Cannon Street, EC4 TQ3264080960 MOLAS, 2006, Excavation Booth 2007, Maloney and Holroyd 2007	106BHS73 106–114 Borough High Street, SE1 TQ32527996 SAEC, 1973, Excavation Schwab 1978 Context-level data: 4 contexts listed Registered Finds Roman pottery sherds quantified
88	92
WIT83 St Swithin's Lane	120BHS89 120 Borough High St

120–124 Borough High Street, SE1	DGLA (S&L), 1989, excavation	
TQ322018210	Cowan et al. 2009	
DGLA (S&L), 1989, Excavation		
Cowan et al. 2009		96
Context-level data: 206 contexts listed		
Registered Finds	207BHS72	
Roman pottery sherds quantified; weights and EVEs partially quantified	Borough High Street	
Glass	207–211 Borough High Street, SE1	
Building Material	TQ32517983	
Animal bone, unquantified	SAEC, 1972, Excavation	
	Ferretti and Graham 1978	
	Context-level data: 26 contexts listed	
	Registered Finds	
	Roman pottery sherds quantified	
	Glass	
	Coins	
93		
124BHS77		
124–126 Borough High Street		
124–126 Borough High Street, SE1		
TQ32517993		97
SLAEC, 1977, Excavation		
Hinton 1988		
94		
175BHS76	213BHS77	
175 Borough High St	213 Borough High Street, SE1	
175–177 Borough High Street, SE1	TQ32497981	
TQ32537990	SLAEC, 1977, Excavation	
SLAEC, 1976, Excavation	Cowan et al. 2009	
Cowan et al. 2009		98
Context-level data: 89 contexts listed		
Registered Finds	15SKS80	
Roman pottery sherds quantified; weights and EVEs partially quantified	Calverts Buildings	
Glass	15–23 Southwark Street	
Building Material	TQ32528011	
	DGLA (S&L), 1980, Excavation	
	Cowan 1992	
	Registered Finds	
		99
95		
179BHS89	2SSBS85	
171–191 Borough High Street	2 Southwark Street, 1A Bedale Street, SE1	
179–191 Borough High Street, SE1	TQ32688020	
TQ32557985	DGLA (S&L), 1985, Excavation	
	<i>Roman Settlement Proof</i>	

100

AB78
 Arcadia Buildings
 Silvester Street, Great Dover Street, SE1
 TQ32577966
 SLAEC, 1978, Excavation
 Cowan et al. 2009, Dean 1980
 Context-level data: 194 contexts listed
 Registered Finds
 Roman pottery sherds quantified; weights and EVEs partially quantified
 Glass
 Building Material
 Animal bone, unquantified
 Coins

101

BGH95
 Borough High Street Main Ticket Hall
 Borough High Street, SE1
 TQ32698020
 MOLAS, 1995, Excavation
 Drummond-Murray et al. 2002
 Context-level data: 755 contexts listed
 Registered Finds
 Roman pottery sherds quantified; weights and EVEs partially quantified
 Glass
 Building Material
 Animal bone, unquantified
 Coins

102

BRG74
 GPO Trenches
 Borough High Street (GPO trenches), SE1
 TQ32648014
 SAEC, 1974, Watching Brief

103

Bridge House Sewer Diversion, Montague Close
 SAEC, 1972–4, Watching Brief
 Bird et al. 1978

104

BSE94
 Jubilee Line Sewer Diversion
 Borough High Street, SE1
 TQ32718022
 MOLAS, 1994, Watching Brief and Excavation
 Drummond-Murray et al. 2002
 Context-level data: 7 contexts listed
 Registered Finds
 Roman pottery unquantified
 Building Material

105

BTBHS91
 BT Tunnel
 Borough High Street, SE1
 TQ32608009
 DGLA, 1991, Watching Brief
 Sankey n.d.
 Context-level data: 13 contexts listed
 Registered Finds

106

BTJ93
 British Telecom Junction Box
 61 Borough High Street (opposite), SE1
 TQ32858014
 MOLAS, 1993, Excavation
 Drummond-Murray et al. 2002
 Context-level data: 11 contexts listed
 Roman pottery unquantified

107		Millett 1983 Gazetteer: L37 Hinton 1988 Context-level data: 11 contexts listed Registered Finds Roman pottery sherds and weights quantified
	BWMC74 Bonded Warehouse Montague Close, SE1 TQ32728033 SAEC, 1974, Excavation Graham 1978 Context-level data: 6 contexts listed Registered Finds Roman pottery sherds quantified Glass Coins	111
108		GM439 Ingledew and Davenport Site 18–20 Southwark Street, SE1 TQ3262180182 GM, Cuming Museum, 1961, Excavation Marsden 1971
	CO87 Courage Brewery (former) Park Street, SE1 TQ32418020 DGLA, 1987, Excavation Cowan 2003, Hammer 1994 and 2003, Yule 2005 Context-level data: 57 contexts listed	112
		HC74 Hibernia Chambers Montague Close, SE1 TQ32758036 SAEC, 1974, Excavation Bird et al. 1978
109		113
	CO89 Courage Brewery (former) 3 Redcross Way, SE1 TQ32458020 DGLA, 1989, Excavation Cowan 2003 Context-level data: 29 contexts listed	JSS92 Jubilee Sewer Trench 1 Borough High Street (adjacent to), Southwark Street (corner of), SE1 TQ32728023 MOLAS, 1992, Excavation Drummond-Murray et al. 2002 Context-level data: 21 contexts listed Registered Finds Roman pottery unquantified Building Material
110		114
	DHS75 District Heating Scheme Montague Close, Borough High Street, Tooley Street, SE1 TQ32918031 SAEC, 1975, Watching Brief	Montague Close TQ32708032

SAEC, 1972–4, Watching Brief
Bird et al. [1978](#)

115

PRK90
Park Street
18 Park Street (rear of), SE1
TQ32508027
DGLA (S&L), 1990, Excavation
Cowan [2003](#), Hammer [2003](#)
Context-level data: 34 contexts listed

116

STU92
Thames Water Trench/Jubilee Line Extension
Southwark Street, St Thomas Street, SE1
TQ32728019
MOLAS, 1992, Excavation
Drummond-Murray et al. [2002](#)
Context-level data: 64 contexts listed
Registered Finds
Roman pottery sherds quantified; weights and EVEs partially quantified
Glass
Building Material

117

TW84
Toppings and Sun Wharves
Tooley Street, SE1
TQ32868034
DGLA, 1984, Watching Brief
Watson et al. [2001](#)

118

WP83a–c
Winchester Palace

Pickfords Wharf Ditch, Winchester Square, SE1; Stave and Rosings Wharves, Clink Street, SE1; St Mary Overy Wharf and Dock, Clink Street, SE1
TQ32598037, TQ32618037, TQ32608035
DGLA (S&L), 1983, Excavation
Yule [2005](#)

S1

GM331
64–66 Cheapside
TQ3244581125
GM, 1931, Watching Brief
Millett [1983](#) Gazetteer: L9
Dunning [1945](#)

S2

Christ's Hospital
106–113 Newgate Street
TQ319814
Lambert, pre-1945
Millett [1983](#) Gazetteer: L27
Dunning [1945](#)

S3

25 Lombard Street
TQ32878100
Dunning, pre-1945
Millett [1983](#) Gazetteer: L23
Dunning [1945](#)

S4

52 Gracechurch Street, Talbot Court
TQ32988086
Dunning, pre-1945
Millett [1983](#) Gazetteer: L14
Dunning [1945](#)

s5

68 King William Street
68 King William Street/London Bridge
Approach
TQ32868085
Dunning, 1919–21
Millett 1983 Gazetteer: L20
Dunning 1945

Millett 1983 Gazetteer: L2
Dunning 1945

s9

Bond Court
GM, pre-1945
Dunning 1945

s6

76–80 Cannon Street (Steelyard)
TQ326809
pre-1983
Millett 1983 Gazetteer: L8
Millett 1983

Lombard Street, west of St Edmund's
Church
Lambert, pre-1921
Dunning 1945, Lambert 1921

s11

s7

112 Fenchurch Street
TQ33328101
Dunning, pre-1945
Millett 1983 Gazetteer: L11
Dunning 1945

'South end' of Nicholas Lane
TQ32838094
Lambert, 1919–21
Millett 1983 Gazetteer: L29
Dunning 1945; Lambert 1921

s12

s8

Barge Yard
TQ32638106
Dunning, pre-1945

'Top of St Clement's Lane
TQ32878099
Walters, pre-1908
Millett 1983 Gazetteer: L10
Walters 1908

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